



Carlson and Accor 4,000 branches but will the tree grow?

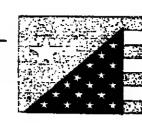


ICL Leaving the arrogance behind



In his own words

De Benedetti on the Italian elections



China and the US

Who owes who a favour?

# FINANCIAL TIMES

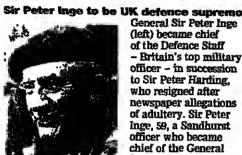
### puts spotlight on short-term rates

-Europe's Business Newspap

The US economy is continuing to expand rapidly, increasing the chances of another rise in short-term interest rates, figures from the Federal Reserve show. Industrial production rose an unspectedly large 0.4 per cent in February, following a 0.5 per cent gain in January. The figures suggest industrial output is growing at an annual rate of 7.8 per cent in the first quarter. Page 14 and

Japan's US trade surplus falls: Japan's trade surplus with the US fell for the first time in nine months in February, the Ministry of Finance said. The surplus was \$4.34bn, a fall of 0.9 per cent compared with the same month last

Sayer lifts German hopes: Hopes of an end to the German chemicals industry's four-year profits slump were raised by better-than-expected earnings from the Bayer group. Pre-tax profits were down 12.6 per cent to DM2.35bn (\$1.33bn).



(left) became chief of the Defence Staff Britain's top military officer - in succession to Sir Peter Harding, who resigned after newspaper allegations of adultery. Sir Peter Inge, 59, a Sandhurst officer who became chief of the General Staff two years ago,

had been acting as caretaker military adviser to the government. He becomes a field marshal.

China warted in Gatt: Members of the General Agreement on Tariffs and Trade, with the exception of the US, expressed strong support for an early resumption of China's Gatt membership. Page 6

Italian journalists strike over pensions: Italian journalists began a four-day strike in protest over plans by the government to place some of the surplus in the journalists' pension fund in the main state-operated pensions scheme. Page 3

Portugal's consumers hit banks: Portugal's consumers organised a 24-hour boycott of direct debit cards in protest at an attempt by banks to charge commission on use of the cards. Page 2

Germany to lose 100,000 engineering Jobs: Export growth will help Germany's engineering industry increase sales by 2 per cent this year, but a further 100,000 jobs will be lost before a recovery emerges in 1995 or 1996, according to the VDMA industry association. Page 2

Nine Somali bandits killed: Indian peacekeeping troops in Mogadishu shot dead nine Somali bandits who attacked a relief convoy.

Deloitte to pay \$312m damages: Deloitte & Touche, US accountancy firm, is to pay \$312m to settle a string of government charges that it failed properly to audit several banks and savings and loan institutions which collapsed in the 1980s.

**Woiseley** of the UK, the world's biggest supplier of heating and plumbing equipment, reported an 83 per cent rise in interim pre-tax profits to 287m (\$127m). Page 16; Lex, Page 14

Mirror Group Newspapers of the UK marked its independence from administrators and the legacy of the late Robert Maxwell with higher than expected pre-tax profits of £73.8m (\$107.7m). Page 16; Lex, Page 14

Brussels to act on telecoms ventures: The European Commission said it intended taking a more active role in policing joint ventures in the fast growing telecommunications market. Page 14: Merchant bankers brave disdain of Athens, Page 2

Rail costs disclosed: Companies which take over British Rail's passenger operations can expect to pay about £500m (\$730m) a year to lease trains in addition to the £2.2bn they will pay for the right to use the rail network. Page 7

Lyonnaise des Eaux-Dumez, French utilities and communications group, reported net profits for 1993 more than doubled at FFr800m (\$133m).

Fire hits California phones: A fire in a telephone switching centre disrupted telephone service to hundreds of thousands of people across southern California.

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# Fast growth in US Microsoft reorganises to meet market challenges

By Alan Cane in London

Microsoft of the US, the world's largest personal computer soft-ware company, yesterday amounced a worldwide reorganisation to improve decision mak-ing and market responsiveness. It said the new structure was necessary to achieve its goal of doubling sales over the next four years. Last year the company had

net income of \$953m on sales of

unlike many computer companies which are actively cutting staff. "It will not reduce our overall headcount, but it will allow us to grow without increasing our headcount as much as our current organisation would require", the company said.

A memorandum sent to employees says the company could seize "incredible opportunities" in the next few years, but

Microsoft says the reorganisa-tion will not lead to job losses, ing Lotus and Novell, are supeing Lotus and Novell, are superior in sales and marketing: "We cannot just follow and react to what others are doing". Restructuring is expected to take hetween two and three

months with all the key elements in place before the start of Microsoft's new financial year in the autumn.

The company denied the reorganisation was a response to an investigation of its business prac-

Justice Department. Last year, the US Federal Trade Commission failed to agree whether to proceed against the software company after more than three years of investigation of whether

as market leader. Microsoft, boosted hy sales of MS-Dos and Windows personal computer operating software has shown quarterly earnings growth of between 25 and 55 per cent

Microsoft had abused its position

over the past few years. In the first quarter of the current year. however, growth slowed to 14 per cent, causing analysts to suggest that the company was maturing and that competitors were eating

away at its market share. The reorganisation is designed to accelerate decision making, simplify its marketing messages to customers and business partners and improve husiness efficiency. Seven product groups are to be created to cover, for exam

ple, personal operating systems and desktop applications. New customer units will have responsibility for individual computer users, organisations and compa-nies which build Microsoft software into their own products. Microsoft believes central Europe could become its single largest market with the potential

Regrouping to get closer to the

of \$1bn in yearly sales.

# G7 urges IMF to release \$1.5bn for Russian reform

By John Lloyd in Moscow

The Group of Seven leading industrial countries, fearful that the Russian economy may collapse, are pressing the International Monetary Fund to agree to lend the second \$1.5bn tranche of

its fund to assist reform.

Mr Micbel Camdessus, IMF managing director, is expected in Moscow tomorrow. During his five-day visit he will have to decide whether to recommend to the fund's board to pay the second tranche of the systemic transformation facility or again delay payment because of fears that the budget will not be adhered to and that inflation down to a monthly 9 per cent in February - will again soar, as

A continued fall in production Mr Victor Chernomyrdin, and the buge indehtedness in prime minister, has sought to

that government income is running at half of the budgeted figures for the first two months of

Meanwhile, powerful lobbies, especially the military, are demanding higher allocations than the present hudget allows -with General Pavel Grachev, defence minister, warning that his troops will go unfed unless the allocation to defence of Rbs37,000bn (\$21.6bn) for this year are more than doubled.

One senior western financial expert in Moscow said yesterday: "The base to support the infrastructure of the country is shrinking and at some point soon you will not have enough resources to support the mini-

Russian industry have meant impress on the IMF - which has a team negotiating with Russian ministers in Moscow - that he and senior colleagues are at least as pro-market as radicals such as Mr Yegor Gaidar and Mr Boris Fyodorov, who left the cabinet

> The G7 countries had relaxed their pressure on the IMF and the other international financial institutions such as the World Bank to lend to Russia after the December elections, as the outcome led them to believe that further reform was unlikely.

Mr Chernomyrdin has drawn up a list of companies to be declared bankrupt, has enthusi-astically endorsed the sell-off of state and collective farms to individuals, and says he will repel all advances from the military,



Continued on Page 14 | Welcoming hands greet Nelson Mandela in Mmahatho, capital of Bophuthatswana. Page 14

### EU expansion talks face collapse as UK holds out

By David Gardner in Brussels and Roland Rudd in London

Talks among European Union foreign ministers to settle the row over power-sharing if the 12 take in four new members next year were on the verge of collapse last night, with the UK holding out for yet another meeting to settle the issue.

Any further delay on the voting rights dispute might sink chances of Austria, Finland, Nor-way and Sweden joining the EU next January as planned, and brake the momentum behind the Union's expansion.

The UK, which with Spain is resisting any dilution of its right to block decisions in the EU

Council of Ministers, predicted last night that further negotiation would be needed - possibly at a summit of European leaders. A senior British government

official said: "There will be another meeting, but we don't know the level, the time or the place." But he made clear that the government could not yet work its way around the voting rights dispute, which it acknowledges may sabotage prospects for the "wider Europe" London says

lt espouses. You have to realise how [any weakening of UK veto rights] could play in Westminster" among right-wing, Europhobic members of the British parliament, the official said.

Mr John Townend, chairman of the powerful Tory backbench Finance Committee, said opposition to watering down Britain's rights was spread right across the party. "This is a case of blackmail, to put it bluntly. The Commission is proposing watering down voting rights to have enlargement of the Commu-

Mr John Major, the UK prime minister, asked in parliament to clarify the government's negotiating position at the foreign ministers' meeting, said: "What we need to ensure is that democratic legitimacy and the rights of minorities are sustained within the European Union."

One rightwing hackbencher

countries seemed scarcely to

speak to each other, and the mix

had produced some very frank

said privately: "The prime minis-ter has been told that he risks his majority in the Commons if he allows the Foreign Office to agree to any compromise over our blocking veto."

However, Sir Norman Fowler, Conservative party chairman, predicted that there would be no revolt by Conservative Euro-sceptics over UK voting rights in

In Brussels, enormous pressure was being placed on the British, including calls for a vote that would expose them as the obstacles to the move from a Europe of 12 to 16. Germany, France, the Netherlands and Denmark all suggested that those who opposed the will of the EU majority on how to manage this first stage of expansion should "go away and reflect", as the Da-

nish foreign minister, put it. The UK wants to change the proportion of weighted votes in the Council of Ministers needed to block EU laws and regulations. Currently, 30 per cent of the votes - distributed roughly according to size among member states - can form a "hlocking minority",

lan Davidson, Page 12

### Jobs summit promotes free trade and labour flexibility

By George Graham, David Goodhart and Stephanie

Ministers from the Group of Seven leading industrial nations agreed yesterday that free trade, labour market flexibility and a stable economic environment were essential to tackle the persistent unemployment that has

afflicted all their economies. However, the unprecedented two-day conference in Detroit produced "no single solution, no one idea or action that will work for every country," said Mr Lloyd Bentsen, the US Treasury secretary and meeting chairman.

The conference yielded a consensus that countries must balance the right macroeconomic policies with measures to attack structural joblessness. "Structural reforms can make

our labour markets and employ-ment systems far more adaptable to change. We need, carefully and in our own ways, to pursue policies to take down barriers and to strengthen our markets," Mr

Ministers agreed on the need to improve the education, training and skills of their workforces, but Mr Bentsen warned that the G7 countries could produce all the highly trained workers they wanted, "but it does no good unless we've created the climate in which the corporate world has jobs waiting for them".

■ Lucky few hog the jobs in the summit city Page 4 Editorial Comment Page 13

The Detroit conference's conclusions will form the starting point for the sberpas preparing July's summit meeting of G-7 leaders in Naples. But beneath the apparent harmony, divisions emerged, particularly on the rela-tive importance of government

and the private sector. "I won't say that there were sharp exchanges, but there were some courteous sharp disagreements," said Mr Robert Reicb, the US labour secretary. Participants said the meeting had brought together labour and

Among the most radical ideas that received support was a sug-gestion to allow employees to work a fixed number of hours in the year, rather than each week, allowing greater flexibility both for employers to deal with sea-

sonal variations and for workers to plan their own free time. "At a time when modern technology gives us more and more flexibility, why should work time still be planned as it was at the beginning of the industrial revolution?" said Mr Henning Christophersen, European Commission vice-president

Mr Bentsen said ministers had agreed to ask the Paris-hased Organisation for Economic

#### Co-operation and Development to study the relationship between productivity, technology and job creation and to expand a study already under way to improve statistics on johlessness in the industrial world.

### CONTENTS Managed Funds ... Money Markets ..... Recent issues ..... \_\_30-34

### WHEN WE INVEST IN A COMPANY WE'RE NOT INTERESTED IN ITS WORTH. ONLY YOURS.

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Prime Minister Edouard Balladur has settled a feud between his defence and budget ministers over future military expenditure by deciding that armaments spending should rise annually by 0.5 per cent in real terms until the end

of the century.

Mr Balladur engineered the compromise as the government prepares to present to parlia-ment next month the 1995-2000 military framework law. This does not absolutely tie a government's hands over annual defence budgets, but since France is likely next year to elect a president from the ranks of the governing coalition - even perhaps Mr Balla-dur - it will be a good guide to future defence spending.

Mr Francois Léotard, the defence minister, had pushed for a rise in military equipment spending of 2.5-3 per cent a year, taking as his text the recent government-approved defence white paper. It said real "annual growth of at least 3 per cent" was needed to fund all programmes underway, though it acknowledged greater efforts could be made to keep arms suppliers' charges down and foresaw some savings through "a cer-tain pause" in modernising France's nuclear deterrent.

Mr Nicholas Sarkozy, the budget minister, argued that the armed forces should be subject to the same financial discipline as the civil sector. The government's five-year fiscal programme, designed to fit France to enter monetary union with Germany and other European partners by the late 1990s, calls for an average 0.4 per cent cut in public spending in each of the next three years. Mr Balladur's decision to allow arms spending to con-

tinue to rise modestly will appease the strong defence lobby inside the government coalition, but will mean more severe cuts in civil programmes. France's 1994 defence equipment budget of FFr100.4bn (£11.5bn) is already higher than that of other European allies, with Britain planning to spend about 60 per cent - and Germany only 27 per cent of the French level this year, according to French defence

President Mitterrand's twoyear old moratorium on south Pacific bas provoked strong complaints from within the government majority, but without saving much money because the government bas started research into laboratory simulation of such tests. The Elysée yesterday welcomed President Clinton's decision to prolong until autumn 1995 a similar moratorium.

Another general drain on the defence budget has come from France's heavy involvement in United Nations peace-keeping operations in ex-Yugoslavia and elsewhere. Last year this cost France FFr7bn, of which only FFr1.5bn will be reimbursed by the UN.

• The German government yesterday approved new guidelines for the armed forces which call for the build-up of rapid-reaction forces under Nato's post-cold war strategy of crisis management, Reuter

The guidelines, laid down in a policy document to be published next month, spell out Germany's new international role after unification and detail changes in the military force structure. "This is the first building block of the future Bundeswehr (Federal Armed Forces)," Mr Volker Rühe, defence minister, said. There were instances in international risis management where "milprevent, limit or end violence." he said. ltary means are necessary to

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# Merchant bankers brave disdain of Athens

The Greek socialists know they must pay the price as telecom sell-off brings back the fee seekers, writes Kerin Hope

the state telecommunications company, OTE, western investment bankers are pushing back into

Athens for another try.
With the socialist government mitted to relaunching its conservative predecessor's privatisation programme, to help cover a rapidly widening budget deficit, the sale of 25 per cent of OTE is being set pro-visionally for October. However, plans for the flotation are still vague, not least because the

socialists, after their election vic-

without appointing a replacement. Giorgos Gennimatas, the economy minister, who is undergoing treatment for cancer, the prime minister Mr Andreas Papandreon, has not indicated who will be responsi for awarding the mandate for the

It will be a delicate political decision, given the opposition to the sale voiced by OTE's powerful trade union, and a prevailing mood of

Indeterred by Greece's fail-ure last year to carry out a planned partial flotation of state telecommunications com-tate telecommunications com-and Credit Suisse First Boston, A senior socialist official said: "Wa're naïve perhaps, but we were conservatives were prepared to pay to foreign consultants."

> oth Rothschilds and CSFB B were advising the previous government on its plan to sell a 35 ner cent strategic stake in OTE to an international operator. In addition, CSFB and J Henry Schroder Wagg were appointed global co-ordinators for the flotation

of another 14 per caut of the com-pany on the Athens stock exchange, expected to raise about Dr160bu (£274m). Rothschilds, together with Morgan Stanley and Parihas, were originally appointed joint lead man-agers of the offering's international transha. But both the sale and form tranche. But both the sale and flotation were cancelled when the conservatives lost power in the general

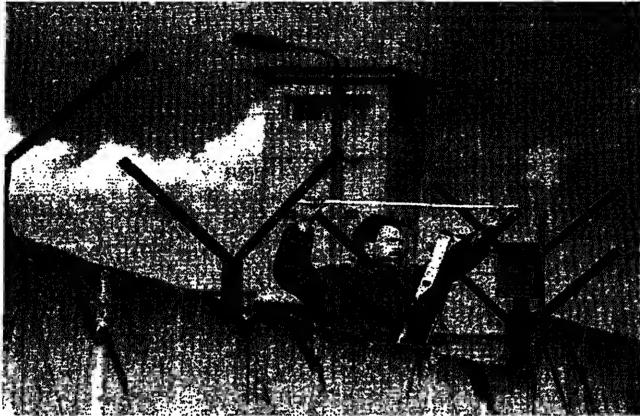
election last year. The socialists' disdain for international advisers extended to firing Arthur Andersen, the accountants, who were preparing OTE's first audit up to international standards. They are to be replaced by audi-

evertheless, economy minis try officials now accept the need to appoint an interna-tional bank as co-ordinator to ensure the success of what will be the largest local offering to date. However, the ministry is already admitting that political criteria will affect the final choice. "Obviously, we can't reappoint the old team, even though a few players may be asked to participate again," n government adviser said. Almost all the banks previously

tors from SOL, a quasi-government involved have submitted fresh pro-body of Greek-sworn accountants. However, confidence is posals. However, confidence is strong among newcomers, among them Bear Stearns, Lehman Brothers, Barings and Barclays de Zoete Wedd.

The government hopes to realise Dr250bn from the OTE sale, with up to 60 per cent of the issue being placed abroad.

"They appear to be counting on the current appetite for telecoms issues among international investors to offset delays in restructuring old-fashioned management and a lack of transparency in the



A tradesman working yesterday on part of the Iron Curtain which is being rebuilt as a tourist attraction near the town of

#### **GERMAN TOWN ANGERED BY NEW IRON CURTAIN**

The euphoria in the eastern German town of Hötensleben, some 185km west of Berlin, when the Iron Curtain was dismantled has turned to amazement and anger since their local leaders decided to rebuild part of it as a monument to the cold war, Reuter reports from Berlin.

Eager to halt the decline of Hötensleben since German unification, a small group of civic dignitaries last year began rebuilding a 330-metre (1,080ft) section of the "death strip" which kept east Ger-

mans from escaping to the west, Hoping to slow a sharp rise in unemployment and reverse a demoralising westward migration of many of its 2,600 citizens, they decided to capitalise on the town's isolated location during the cold war with a unique tourist attraction.

They have spent DM135,000 (£52,500) -some of it government money - to repair and rebuild it, complete with guard towers, spotlights and attack dogs.
"It's pure insanity," said Dr Franz

Wehe, a retired surgeon who lives next to the rebuilt wall. "That damn thing was here for 30 years so why do we have to look at it now?" Nearly 500 people in Hötensleben have signed petitions protesting against the monume

The monument was to have been completed by 1996 but the protests brought a quick halt to federal funding. Annoyed and undaunted, the proponents are seek-ing DM300,000 in private funding to com-plete the monument.

### SPD election victor puts party on alert

By Quentin Peel in Bonn

A supremely self-assured Mr Gerhard Schröder, the victori-ous Social Democrat prime minister in the state of Lower Saxony, swept into Bonn yes-terday to warn his party colleagues against over-confidence in their own coming

election campaigns.

It was a moment of vindication for Mr Schröder, who was defeated last year in the contest to become national leader of the Social Democratic party (SPD) by the altogether more modest Mr Rudolf Scharping, the state premier of the Rhine-land-Palatinate.

This time he was coming back as a winner from the very first poll of Germany's 1994 election marathon, which will see 18 more polls culminating in the general election on October 16.

His emergence from Sunday's state election in Lower Saxony with an absolute majority - albeit only of one seat - means that he can rule without any coalition partner. That is a luxury enjoyed by the government in only five other states of the 16 in the federal

republic. Mr Schröder was magnanimous in his victory. He paid tribute to the Greens who had been his partners in the first red-green coalition in Ger-many, and will undoubtedly still be needed to provide some support for his wafer-thin majority. At the end of Sunday night, his SPD had won 81 of

the 161 seats in the Hanovered state parliament, against 67 for the Christian Democratic Union, and 13 for the Greens. The biggest losers were the Chancellor Helmnt Kohl's CDU, which lost 5.6 percentage points to win just 36.4 per cent of the vote, and the Free Demo-

One man had shown he could make a difference for the CDU; the arrival of Mr Kohl himself showed that the ruling party could still boast a notable campaigner

cratic Party (FDP), his coalition partner in Bonn, which failed to gain the minimum 5 per cent needed to win any seats at all.

Yet Mr Schröder's main warning was to his own SPD party colleagues, not to relax in the forthcoming election campaigns and regard them as good as won. And he spoke out strongly against national policies which

might prove disastrous votelosers in the campaign, such as a national speed limit on the autobahns, and an increase in taxes on petrol and oil prod-

Mr Schröder, whose victory is seen very much as a per-sonal triumph, admitted he

in Lower Saxony, with a seri-ous shortage of personalities in its leadership.

Yet one man had shown he could make a difference in the last two weeks of the campaign, he said: the arrival of Mr Kohl himself showed that the ruling party could still boast "a notable and battle-bardened election campaigner" who should never be under-es-

It was no doubt a nest reminder to his erstwhile SPD rival, Mr Scharping, about the harsh struggle ahead. Mr Schröder pledged his loyal sup-port to his national leader, but he firmly ruled out any future role in Bonn for himself.

He was speaking just five days before the next test in the election marathon, when 2.1m voters in the state of Schleswig-Holstein must elect new local councils on Sunday - and where the SPD itself is facing a

backlash in the polls. State officials of the CDU are hoping to push the SPD into second place and to emerge once again as the largest party, reversing the positions of 1990. The biggest loser from the Lower Saxony election was the

Free Democratic party, which failed to gain even the minimum 5 per cent needed to win seats in the state parliament. And in spite of its loss of power in the coalition, the biggest winner was the Green party, which pushed np its

vote from 5.5 to 7.4 per cent.

. . .

# Exports boost for engineering sector in Germany

By Christopher Parkes in Frankfurt

Export growth will help Germany's engineering industry increase sales by 2 per cent this year. But a further 100,000 jobs will have to go, and a sustained recovery will not emerge until 1995 and 1996, according to the VDMA industry association.

Stronger growth was not possible

because of weak domestic demand, and the industry's average net return on sales of less than 1 per cent was too low to finance investment, modernisation and new jobs, Mr Jan Kleinewefers, association

president, said. Growing demand from ontside Europe for German machines had been apparent for a year, and in the

signs of a change for the better in west European orders, which were no longer slowing, he said. However, average capacity utilisa-

tion was still at a record low of 75.6 per cent at the end of last year. Only four sectors - steel plant, textile, packaging and woodworking machinery - were working at satis-

past two months there had been factory rates of 85 per cent or more. helping bolster sales to east Asia by per cent, leaving the sector showing Highlights of last year - the worst since the war, and marred by a 11 per cent slump in industry-wide sales to DM209bn (£81.3bn) included a 10 per cent increase in sales to the US, Mr Kleinewefers said. The US was now the industry's biggest singla foreign market. Exports to China doubled to DM4bn.

15 per cent. However, domestic orders fell a real 15 per cent, and a drop of 13 per cent in demand from other European Union countries meant total foreign orders rose only 1 per cent.

Turnover from export deliveries fell a real 7 per cent to DM110hn, but 200,000 jobs had machinery imports also shrank 12 of the country.

a trading surplus of more than DM50bn. Between the onset of the recession in 1990 and the end of last year, the plant and machinery indus-tries – second only in terms of sales to the automotive sector - had seen output fall by 20 per cent. Soma 200,000 jobs had been lost in the west

Consumers boycott debit cards in protest against surcharge

# Portuguese take on banks

By Peter Wise in Lisbon

Portugal's bard-preased consumers took on the country's big banks yaster-day - organising a 24-hour boycott of their widely used direct debit cards in protest at an attempt by the banks to charge commission on use of the

They were responding to an angry appeal by consumer associations, suparmarket chains, petrol stations and other businesses to protest against a decision by banks to charge a commission of 1 per cent on purchases made with

Shop owners said banks would earn EscSbn (£30.7m) to Esciobn a year from the charge, due to be levied from April. They warned they would be forced to pass on the extra cost to consumers because retail profit margins were already low.

The Multibanco card system in Portugal, considered the most advanced in Europe. allows consumers to shop, pay

utility bills, dine out and book train tickets without using "They all plan to introduce the cash or cheques. The cost is immediately debited from their bank accounts and paid into the account of the supplier. . The system, run by Socie-

same charge at tha same time without offering consumers any choice." Mr Luis Cid, SIBS director.

said it was natural that banks

'We want banks to be flooded with cheques as a result of the boycott to remind them of what a boon the Multibanco system has been to them'

(SIBS) for almost all Portuguese banks, provides 3,000 automatic teller machines countrywide where cardholders can withdraw and deposit money, consult their accounts, and order cheque books. Retail outlets are equipped with 30,000 electronic points of sale (Epos) integrated into the sys-

"Wa will take the banks to court for operating a cartel," said Mr Jorge Morgado of the Deco consumer association

dade Interbancaria de Servicos should seek to regain operational costs through a charge for a service that has been free since it was introduced in 1985. Three years ago British consultants estimated each Multibanco operation cost Es100. considerably less than the cost of processing a cheque. The decision to levy a charge on card use comes as falling interest rates are sbarply

reducing earnings from loans

and deposits and banks are

seeking to improve their bal-

ance sheets through commis-

port and challenged a statement from SIBS that use of the Multibanco system yesterday was normal or avan above average.
Paying for his lunch yesterday with cash instead of a card as usual, Mr Paulo Garcia, a computer engineer said: "The banks have enticed us into the Multibanco system over the past eight years by levying no charges. "Now they want us to

"We want banks to be

sions and fee-based incoma However, the use of cards has allowed banks to reduce staff levels. It has also improved services for customers, who until recently had to wait in long queues for the simplest of banking services.

tariffs.

flooded with cheques as a result of the boycott to remind them of what a boon the Multibanco system has been to them," said Mr Morgado. He said Deco had been overwhelmed by messages of supper cent to 15 per cent.

> The move appears to mark a success for Mr Alexander Zavaryukha, tha deputy premier with responsibility for agriculture, who had argued for a 25 per cent rise to white

Russia to raise tariffs on range of imports

By John Lloyd in Moscow

Pressure from Russia's powerful industrial and agricultural lobbies, coupled with fears of rapidly falling government income, have persuaded the government to bring in sweeping new import

The tariffs, the subject of several decrees not yet published, are reported by the Interfax news agency to raise the average tariffs from 6-7 All imported food will be subject to a 15 per cent tax, while white sugar will carry a 20 per cent tariff and igarettes a 30 per cent import tax. Tariffs on cars and perfume will also go np sharply: the changes will mean that foreign cars will

carry a tax of between 40-60 per cent.

Russia will not only cut grain imports to a minimum this year, but intends to export 2m tonnes, the deputy agriculture minister, Mr Vladimir Shcherbak, told a government commission meeting.

Reuter reports from Moscow. RIA news agency quoted him as saying domestic supplies were sufficient to meet most demand, but there would still have to be some small imports of certain types of grain.

se should include 100,000 tonnes of corn seed, already covered by preliminary agreements and waiting in western ports to be delivered. Mr Shcherbak said. But foreign companies were seeking finance ministry payment guarantees before making shipments, and the agreements could still fall through, he said. Russia imported about 11m tonnes of grain in 1993, down from

25m tonnes in the previous year.

Mr Shcherbak gave no details of the planned exports.

sngar prices to protect domestic producers. At the same time, however, tariffs on imported spare parts needed to re-tool industry have fallen to

5 per cent. The other main reason for the increase in tariffs is the rapidly decline in government incomes, with the take from taxes running at little over half of what was expected. The shift to tax foodstuffs which are bought largely by the and the foreign community

foreign-owned shops can be put through with a minimum of political pain. At the same time, the choice of goods which are subject to the new tariffs shows that the government has not abandoned itself to wholesale protectionism, leaving large sectors unprotected and imposing on only a very few

commodities - weapons,

caviar, matches and concentrated alcohol – a 100

per cent tariff increase.

# Spanish workers prepare to fight Suzuki cutbacks

pay. I support the boycott and

will stop using my card for

purchases altogether if they go

ahead with the charge."

By Tom Burns in Madrid

The future of Suzuki's Spanish subsidiary remained in doubt yesterday after workers flatly refused to negotiate drastic job cuts demanded by the Japanese company. Suzuki told union leaders it

intended to reduce the labour

ares by 70 per cent from 2,437

Earlier this week Suzuki said it would drop a threat to close

to 941. The company also plans to reduce production of the four-wheel drive vehicles that the factory produces by 50 per cent to 25,000 units this year and to impose a two-year wage

the plant if unions agreed to

job cuts. Santana, which is

Suzuki, applied for receivership last month saying it had sustained accumulated losses of Pta21bn (\$151m) in the past three years. Union leaders said Suzuki had delivered a "take it or leave it" ultimatum which was

completely unacceptable. They

said there was no point in fur-

ther talks and that they would

some 80 per cent owned by now concentrate on mobilising

the Linares area in southern Spain, where Santana represents the sole industrial activity and provides for more than 30,000 indirect jobs.

The anger in Linares has been fuelled by the failure by both Suzuki and the regional government to implement an agreement signed last year. Suzuki had agreed to wage increases of between 4-6 per

cent and to raise output to 50,000 units a year, while the authorities had promised subsi-

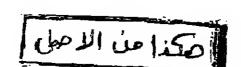
The Santana union leaders are understood to be preparing big demonstrations in Madrid at the weekend when the ruling Socialist party meets to holds its national congress. Yesterday, plant workers put up road blocks around Linares

and temporarily occupied government offices in the nearby provincial capital of Jaen. The future of Santana, which previously made Land Rover

vehicles, has been in doubt since early last year. The issue came to a head when the company filed for protection from creditors on February 18, provoking fierce

the surrounding region. The strength of the Santana protest against the parent company Suzuki has created concern in the government about its possible impact on the climate for foreign investment in

Spain. The dispute has also generated political worries, with regional elections in Andalucia public reaction in Linares and less than three months away.



### French car sales drive pays off

Government measures to stimulate the French motor industry have prompted a strong response and should result in at least 150,000 extra car orders this year. Mr Gérard Longuet, the industry minister, said yesterday. The measures include a payment from the government of FFr5,000 (2572) for car owners who trade in vehicles more than ten years old to buy a new one, helping to prompt 54,000 extra orders in February compared with January, according to Mr Longuet. He forecast continued improvement and estimated that total car sales this year should exceed 1.9m, compared with 1.72m in 1993. The measures, which also include extra tax breaks for company fleets, have been matched by discounts from car producers. French manufacturers have benefited most, with Renault and Peugeot enjoying a stronger increase than the average 35 per cent. Mr Longuet said it was vital to revive car sales, which fell more than 18 per cent last year. Mr Longuet said that it was vital to revive the depressed car sector, which was severely hit by recession last year and contracted by more than 18 per cent. "The automobile sector is one of the principal motors of the economy and represents more than one million jobs" he said. "It is an ideal target to help stimulate consumption." John Ridding, Paris.

Hedge fund row 'exaggerated'

The importance of bedge funds to the financial markets has been exaggerated in the recent debate over whether such funds should be regulated, according to Mr Edgar Meister, a member of the Bundesbank board. The main wish of the world's central bankers, including the Bundesbank, was for more transparency to observe more carefully the impact of the growing derivative business on the markets, specifically on market interest rates and on money supply, Mr Meister said. Hedge funds were only one of several powerful forces contributing to turbulence in the bond markets. There were also mutual funds, banks and brokers, Mr Meister said. Private investors should be calmed by the fact that the volatility in the capital markets was only temporary. Germany did not face big credit risks on account of hedge funds because the borrow-ing activity of such funds was regulated and limited in Ger-many, unlike in the US, Mr Meister said. AP-DJ, Frankfurt

#### Mayor may lose immunity



The French National Assem bly is to consider a judge's request to strip Lyons Mayor Michel Noir (left) of his parliamentary immunity for sus pected embezzlement. The request from Judge Philippe Courroye was a further blow to the mayor of France's sec ond city, once regarded as a possible presidential con-tender. Mr Courroye said he wanted to place Mr Noir under judicial control while he investigates suspicions the mayor used up to FFr7m (£800,000) in city funds for his own election campaign. Rev-ter, Paris.

Krona to keep on floating

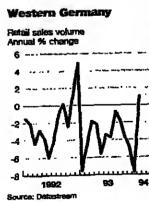
The Swedish krona is likely to float for an extended period and remain outside the European Union's Exchange Rate Mechanism, Mr Thomas Franzen, deputy governor of Sweden's central bank, said yesterday. "The lesson we have learned from nents m recent y (Swedish) economy in order," he told a seminar in Stockholm. He predicted that European interest rates would continue to decline. "Monetary policy is unchanged in Europe despite the recent turbulence lin markets], which means continued successive interest rate cuts." AP-DJ, Frankfurt.

#### Museum fee 'discriminatory'

Spain should stop letting its citizens visit its museums free of charge because the practice of only charging tourists is discriminatory, the European Court of Justice ruled yesterday. Spaniards, foreigners living in Spain and holidaymakers under 21 can visit any state museum free of charge, but foreign tourists over 21 have to pay. The European Commission took the Spanish government to court arguing it was breaking European law by discriminating against people on the grounds of nationality. Charging foreigners effectively restricted their freedom of movement since museums were "one of the deter-mining reasons" tourists were attracted to a country, the Commission said. Spain said it believed its open doors policy was not discriminatory since it included some nationals from other EU states. Reuter, Luxembourg.

**ECONOMIC WATCH** 

#### German retail sales edge up



Retail sales in western Germany were 2 per cent higher in January than in the same month last year. Sales in the whole of Germany were im 3 per cent. 2 per cent higher than in December. The increase was led by a 14 per cent year-on-year rise in sales of cars and components. Pharper cent, and home furnishings 9 per cent. There was a 1 per cent drop in sales of food, drink and tobacco, and a 4 per cent fall in textiles, clothing and shoes. Overall economic activity in Germany "increased noticeably

around the turn of the year, the economics ministry said. The ministry cited growing foreign demand, "lively" housebuilding and "further clear progress" in eastern Germany's recovery as

factors underlying this resurgence.

Russia's industrial output rose 2.3 per cent in February from January, but was 24.1 per cent below the level of a year earlier, the sharpest drop since start of reforms in 1992. Some 4,380 enterprises shut down some or all production last month. ■ Spanish industrial producer prices rose 1.1 per cent in January, compared with a 0.2 per cent rise in December and 0.8 per cent in January 1983. The monthly increase brings the rate for the year to 3.6 per cent in January.

# Ciller to pay at polls for cash crisis

dence in Mrs Ciller's leader-

ship. The bold rhetoric that

accompanied her appointment

has never been matched by the

reality of her policies. Her

reformist instincts have been

frequently blocked by opposi-

tion from her coalition part-

ners, the Social Democratic

"Everyone has lost out," said one disillusioned Turkish busi-

nessman." The central bank's

reputation has been damaged,

so has the Treasury's. Reserves

are depleted. And the small investor has got badly burnt."

Polls suggest that in the municipal elections on March

John Murray Brown on the Turkish government's first political test after presiding over a sharp fall in the lira and a liquidity squeeze

The road builders are just local and international confi-

Populists.

urkey's prime minister, Mrs Tansu Çiller must have told them their cheque was in the post. That at least is how one observer explains the gloomy faces of Turkish motorway contractors when they left a meeting with the prime minister still owed

seven months in payments. After less than a year in office, Mrs Çiller's conservative-led coalition is facing a desperate search for cash to

meet its ongoing expenses.

It is a problem that will almost certainly affect the performance of Mrs Ciller's Truth Path party (DYP) in municipal elections across the country on Turkey is in the middle of

the most damaging financial crisis since the banking collapse of the early 1980s. After a decade of capital market reform, recent currency turbu-lence has underlined just how vulnerable the economy is to policy error. With interest rates on gov-

ernment paper having risen to 125 per cent and the international bond markets for devel-oping country debt suffering the jitters in the wake of the rise in US rates, Turkey is finding it increasingly costly to borrow. Privatisation receipts have not been as large as projected. Meanwhile, most of the tax changes recently intro-duced will not have an impact on revenues until 1995.

The government's problems deepened last week when it was forced to "pull" its \$750m global bond issue. There are civil servants and public works contractors to pay, farm prices to subsidise, and debts to service, and bankers are worried a big liquidity crunch is on the

The currency turbulence has underlined just how vulnerable the economy is to policy error

devaluation in January. Instead Mrs Çiller set alarm bells ringing by suggesting Treasury bill liabilities should be converted into new five-year paper, in effect a domestic

the latest creditors to come

knocking on the government's

door. The contractors had to

settle for a package of tax relief and three-year bonds in

lieu of the \$700m owed for

work completed. The work pro-

gramme for 1994 has been

The government's response

to the crisis and the run on the

lira has been far from convinc-

ing. Sir Leon Brittan, the Euro-

ing a visit to Ankara last

month, urged the Turkish

authorities to introduce austerity measures to underpin the gains from the 12 per cent

sharply curtailed.

What was puzzling was the Treasury's announcement thet it is to issue convertible bonds in the state telecom company, even though the telecom company is still not privatised and all moves to prepare it for sale remain blocked by the courts. There were even press reports, quoting government officials. that undercover agents had been ordered to infiltrate the money markets in the belief thet it was Kurdish separatists who were trying to destabilise

The crisis reflects the loss of

27 Mrs Çiller's DYP will limp in a poor fourth behind the Motherland party Anap, the main opposition party, the Social Democratic Populists, and the Islamic based Refah

The election is the first real test of Mrs Ciller's popularity since she was voted party leader by the DYP congress

A professional economist and a political outsider, Mrs Ciller seemed to offer the best hope of restoring the country's fortunes and forging its western identity. Today if Mrs Ciller survives the current turmoil, it will probably be less the result of any real political achievement than the fact that the DYP is unable to find a credible alternative leader.

ing ways to finance the budget rather than addressing the need to bring the deficit to heel, are attacked by leading economists. Her attempts at more structural changes, such as pushing through large-scale privatisation, tax reforms and curbing civil service pay rises, have been limited because of divisions in her coalition and have done little to ease budget

Also criticised has been her management style on which the resignations of two successive central bank governors have been blamed. What was seen as her mishandling of the 12 per cent devaluation in January badly dented the bank's prestige. Moreover central bank reserves have fallen by as much as \$3bn since the beginning of the year to about \$4.5bn early this month.

Some bankers say Mrs Ciller has in large part brought the bond market has all but dried up as a direct result of her unorthodox and ultimately failed attempt to push down domestic bill rates. The current uncertainty has pushed rates on government paper up 30 points since the second half of 1993. Even at 125 per cent for one-year paper, there are few buyers. As one banker put it: 'it's no longer enough to have an interest rate policy, Some-

thing more is needed."

After 7 per cent growth in
1993, forecasts for this year are being marked down. One western economist says Turkey could see negative growth in 1994, making it even more difficult for business to rebuild.

In such a climate, said one economist, bankruptcies would be unavoidable, particularly

Ciller: once seemed to offer the best hope of restoring the country's fortunes and forging its western identity

for those dependent on government payments, such as contractors. Banks too, will feel the pinch, caught out with large foreign exchange exposure at a time when the lira's

depreciation is accelerating. Today Turkey displays all the symptoms of an economy where inflation is heading out of control. No one wants to

hold lira. On pay day, Turkish

civil servants rush to the are sometimes settled in hard Some foreign banks worry

the lira could fall even more sharply unless a serious structural reform programme is introduced. Few Turkish observers bold out much hope

### **Journalists** strike in pensions protest

By Robert Graham in Rome

Italian journalists yesterday test over plans by the Clampi government to place some of the surplus in the journalists' pension fund in the main stateoperated pensions scheme.

The strike provoked dismay among political parties who have been relying on the media for coverage in the final 11 days of the general election

The stoppage will affect all newspapers today and Thurs-day, and television and radio on the following two days.

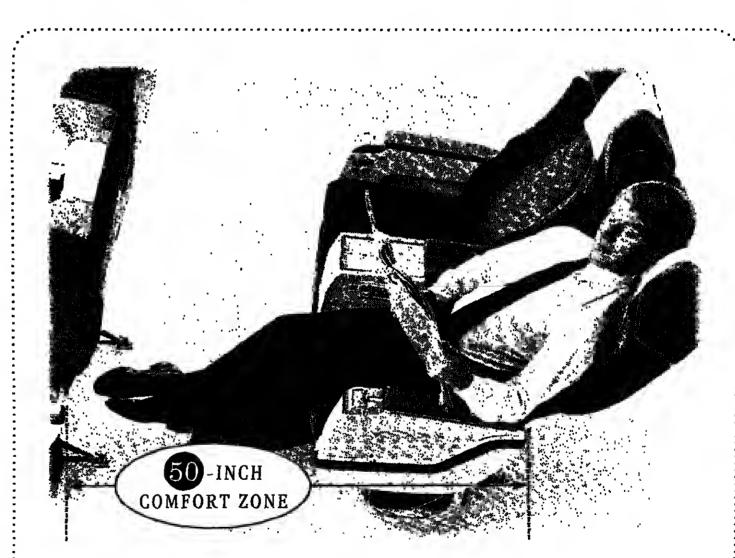
The stoppage is the result of a long-running battle between the journalists union and the government over the pension fund. As part of an effort to boost the fast depleting coffers of the state-operated pension scheme, the Ciampi governm-ment decided last year to raid the surpluses of separately operated, but state-run entities. controlling the pensions of the

The strike comes as Italian journalists have for the first time come onder investigation for corruption. Three prominent economic writers are being investigated by Milan magistrates for allegedly receiving money from the Fer-ruzzi-Montedison group.

The investigations follow revelations by Mr Carlo Sama, the former managing director of Ferruzzi-Montedison wbo bas admitted large-scale illicit funding of poltiical parties. Mr Sama said he had submit-

ted to Milan magistrates the names of several journalists who had been paid sums of money to help improve Ferruz-zi-Montedison's image. The journalists deny the alle

gations. They are Mr Giuseppe Turani, of La Repubblica, Mr Osvaldo De Paolini, former City editor of the husiness daily Sole-24 Ore, and Mr Ugo Bertone of La Stampa Italian journalism has claimed much credit for exposing the corrupt links between business



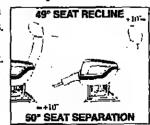
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CAPCOM CO., LTD.

(the "Company")
Yen 12,000,000,000 1 1/2 per cent. Convertible Bonds 1997 (the "Bonds")

Adjustment of Conversion Price to be made as a result of the Stock Split

Notice is hereby given that with respect to the issuance of new shares for a Stock Split authorised at the meeting of the Board of Directors of the Company held on 28th February, 1994, the shareholders on the closing register as at 31st March (Thursday), 1994 (Japan time) (the record date) will be allocated on the closing register as at 31st March (Thursday), 1994 (Japan time) (the record date) will be allocated two (2) new shares for each ten (10) shares owned, and as a result of such Stock Split the following two (2) new shares for each ten (10) shares owned, and as a result of such Stock Split the following adjustment of the Conversion Price for the Bonds shall be made pursuant to Condition 4 (C) of the Terms and Conditions of the Bonds:

Conversion Price before adjustment:
 Conversion Price after adjustment:
 Effective Date of the adjustment:

Yen 8,713.00 per share Yen 7,260.80 per share 1st April, 1994 (Japan time)

CAPCOM CO., LTD.

Japan's trade surplus with the US fell for the first time in nine months in February, the ministry of finance said yester-

The slight drop in the surplus will help reduce tension with the US. But Washington will need further and more substantial falls over an extended period before it is convinced the problem has

The surplus with the US was \$4.344bn (£2.9bn) in February, a fall of 0.9 per cent compared with the same month last year. Imports from the US rose 15.1 per cent, while exports grew hy

Car sales in the US were down sharply, hindered by the strong yen, but exports of semiconductors continued to rise. Imports of US computers, food and machinery surged in February, as did aircraft deliv-

Analysts said the level of the surplus with the US, which was below expectations, would help support the dollar against

Japan's overall trade surplus was up 3.3 per cent in Febru- Planning Agency showed.

ary compared with the same month last year, reaching a record \$10.912bn, although the rease was lower than that in previous months, in December and January, the surplus rose 15.5 per cent and 17 per cent respectively. In yen terms, the surplus, which had risen in January, dropped 9.1 per cent

Japanese exports rose 5.6 per cent to \$29.532bn, wbila imports grew 7 per cent to \$18.52bn. Imports of food, including foreign rice, were up 20.3 per cent year on year.

The growing importance of Japan's trade with other Asian countries was underlined by a 2.6 per cent increase in exports to Asean nations and a 0.7 per cent rise in imports. Exports to China were up 0.8 per cent while imports rose 3.6 per cent.

The markets were surprised by a rise in domestic machinery orders placed by the private sector during January. These orders represent a leading indicator of capital investment intentions. A fall of about 6 per cent had been expected, hut they increased 1.9 per cent against the previous month, data released by the Economic

### Kantor says ties with Tokyo in serious disrepair

Washington and Michiyo Nakamoto in Tokyo

US-Japanese trade and economic relations are "in serious disrepair," Mr Mickey Kantor, the US trade representa-

tive, said yesterday.

Japan must take "its full share of responsibility in promoting global economic growth," be told the House trade subcommittee. It had not yet done that in bilateral talks with the US or in the Uruguay

Mr Kantor, who has pursued a tough line in efforts to encourage Japan to produce a market-opening package containing "numerical indicators of progress," won warm support for his stance from both Republicans and Democrats on the committee.

"Unless or until Japan is prepared to take their share of responsibility we're not going to resolve these problems."

The US, he said, had been "somewbat victimised" with the characterisation that it was proposing managed trade solu-tions. "The Japanese have practised managed Irade for years," he said. "We're trying to unmanage trade in Japan.' Meanwhile it emerged in Tokyo that the US has presented Japan with detailed proposals for measures to promote dcregulation and market

The proposals, contained in a discussion paper, were delivered to Japanese officials in

cific areas where the US would like improved foreign access to Japan's markets.

The Japanese government has resisted demands made by the US under the framework negotiations to set specific objective criteria in opening un its markets. Instead, it has hoped to deflect criticism over its huge trade surplus by tak-ing the initiative in compiling the deregulation plan.

The US proposals include steps in four broad areas covering competition policy, administrative transparency, deregulation and distribution.

In competition policy, the US is calling for the abolition of exclusionary business practices, active application of criminal charges under the anti-monopoly law and snhstantial relaxation of rules governing transport, airline, shipping and trucking fees.

In administrative transparency, the US wants more foreign participation in government advisory groups, while in deregulation it seeks establishment of an independent organisation to supervise progress in deregulating the markets. In distribution, the US is ask-

ing for infrastructural investment to improve rail and road access to Japanese ports and airports, more warehouse space for imports at Narita Airport, introduction of computer systems to handle import matters before goods arrive in Japan and increased handling of foreign products by small-

### Ministry to probe construction groups

The US has informed Japan it is considering claiming damages against Japanese construction companies which allegedly fixed contracts to build a US navy base in Japan. government officials acknowledged yesterday, writes Michiyo Nakamoto.

Mr Kozo lgarashi, minister of construction, said the ministry will investigate US allegations that 73 Japanese contractors conspired to fix contracts to huild the US navy's Atsugi Base between 1984 and 1990 and charged inflated prices for their work.

The US has informed Japan's foreign affairs ministry that it is preparing to seek damages of Y1.1hb (\$10.4m) against the Japanese cootractors, Mr Igarashi sald yesterday. "As the ministry which oversees and instructs the industry, we will look into the matter and deal with it appropriately," the min-

The US move comes at a deli-cate time in US-Japan relations and as the Japanese government has been considering strengthening its competition policy as part of its market

# George Graham, David Goodhart and Stephanie Flanders report from Detroit

# Flexible harmony marks G7 jobs talks

from the Group of Seven leadday wound up two days of discussions in Detroit about unemployment and job creation in a warm glow of appar-

"It seemed to me that there was a new conventional wisdom emerging about the whole question of unem-ployment," said Mr Padraig Flynn, the European commissioner for social

Ministers emerged from their meetings to say they were in broad agree-ment on the need for macroeconomic growth with low inflation, but also that they shared a problem of struc-tural imemployment that would not be solved by growth alone.
"Everyone agrees it's both struc-tural and cyclical," said Mr Paul Mar-

tin, Canada's finance minister. At the same time, everyone agreed on the role of small business as an engine of job creation, the need to improve education and vocational training and the importance of offer-

ing the long-term unemployed a way With considerably less unanimity,

ingly of labour market flexibility. Even whan they used the same words, however, different ministers brought different underlying mean ings to them, reflecting both national

and functional divergences.

Besides occasional national splits "the Anglos against the rest", as one Italian official put it - some delega-tions showed internal differences both between the different political parties in their coalition governments and between the different outlooks of labour and finance ministers.

"Twe got a sense of cultural guils in other delegations," said Mr Kenneth Clarke, the UK chancellor of the On macroeconomic policy, the usual topic of G7 meetings, the Detroit conference showed some of the custom-

The US argues that a considerable portion of the G7's current high Europe, must be attributed to the recession, and therefore requires efforts to boost demand-led growth by interest rate cuts in Europe and by fiscal stimulus in Japan.

Japanese and European officials

coolly noted the US argument, which Mr Edmond Alphandéry, France's 'quite standard". Ha noted that although continantal Europe had higher anemoloyment because it was at an earlier point in the recovery cycle, it was emerging faster and with

'We'll be able to say . . . we all have the same problems' Bill Clinton

less pain than the UK and US had Ms Laura Tyson, the chief White the opening that she would not accept

the argument that structural policies

could replace cyclical policies as a recipe for dealing with unemploy-US officials had expected some-thing of a row with the UK on this issue, but other participants said

adjustments could replace a good macroeconomic framework," said Mr Henning Christophersen, vice president of the European Commission.
On the issue of labour market flexihility, the division became clearer. "Some seem to define flexibility as the freedom to fire workers and lower

"We have never said that structural

wages," complained Mr Robert Reich, the US labour secretary, calling for more worker empowerment and training to telp mobility.

Mr Clarke, the implicit target of Mr Reich's jibe, denied any substantial rift between the UK and the US.

"The Americans in their presenta-tions put less emphasis on labour market flexibility than we do but the reason is that they already have a deregulated labour market," Mr Clarke said.

While ministers agreed on the need to reduce the cost of labour to employers, they differed on the extent to which this reduction should come from the wage packets of their work-

Canada and France urged an attack on payroli taxes, which Mr Martin described as "a cancer on job cresocial security programmes that can harm job creation.

We feel we can eliminate part of the social support system which is a disincentive to work and keep the basics," Mr Martin said. All sides drew a sigh of relief, how-

ever, at the complete absence of sup-port for ideas such as protectionism or a shorter working week.

"The idea of a generalised reduction
of the working week was raised by
no-one. No-one proposed closing their

frontiers to fight unemployment. No-one said we should tackle unemployment by slowing the rate of technological progress. The most tangible thing to come out of it was the refusal to simplify tha problem," said Mr Alphandery. In their efforts to resist populist

demands such as protectionism, G7 countries hope that the Detroit gathering will provide them with useful political cover at home.

"We'll be able to say, see - the Germans and the French and the Canadians and the Italians and the Japanese - well, we all have the same problems," concluded President Bill



MAN IN A HURRY: President Bill Clinton is pressing hard for Group of Seven action over jobs

### Small business role in job creation questioned

Small businesses bave for years commanded the profound obeisance of politicians and economists as the most fertile source of new jobs, and ministers gathered in Detroit this week continued to pay

But economists working under the aegis of the US Commerce Department's Census Bureau have taken a swipe at the idea that small businesses create more jobs than larger ones, in a new study examining the performance of manufacturing industry from 1972 to

Economists Steven Davis. John Haltiwanger and Scott Schuh found that although smaller companies created new jobs at a much faster rate than did larger employers, they also destroyed jobs much more

Companies with fewer than 20 employees added an average of 16.5 per cent to their workforces each year, the study showed, but thay also destroyed an average of 18.8 per cent of their jobs.

At the same time, companies with more than 50,000 employes created new jobs averaging 6.3 per cent of their total workforces each year and destroyed 8 per cent on average.

In a nutshell, net job creation behaviour in the US manufacturing sector exhibits no strong or simple relationship to employer size," the study

The Census Bureau economists also note that newly created jobs at small manufacturing plants are much less likely to survive than new jobs at large plants.

They complain of fallacious statistical presentations of the data on job creation, suggest-

ing that if a company drops in size below the cut-off point for small businesses It can seem to increase employment in the small business sector, even if it really represents a loss of jobs.

Since large companies account for most of manufacturing employment, they also account for most of joh cre-ation and destruction. Small businesses, the study shows, secount for less than one lifth of joh creation.

But from Mr Kenneth Clarke, Britain's chancellor of the exchequer, to Mr Paul Martin, Canadian finance minister, delegates in Detroit this week hailed small businesses as the engine of job creation.

"There's an enormous amount of creative destruction in small business. I think there's job loss in small business but there's also a lot of job creation," Mr Martin said.

### **Pressure** for social clause in Gatt deal

By George Graham in Detroit

France and Italy are leading a drive to include restrictions on child labour and forced prison labour in next month's final round of negotiations on the Uruguay Round of trade liberalisation talks.

Mr Edmond Alphandéry, France's economy minister, urged this week's Group of Seven jobs conference in Detroit to press for "a minimum of rules applied at the international level".

Italy strongly backed the French initiative, and both Canada and Greece, which attended the Detroit meeting as current president of tha European Union, also expressed interest in some form of social clause to the

French officials also expect partial support from the US. which introduced similar protections in Its North American Free Trade Agreement with Canada and Mexico, and has been pressing similar demands in its talks with China about the extension of Most Favoured Nation trading privileges.

"I am well aware that the social clause is far from receiving unanimity," said Mr Michel Giraud, France's labour minister.

International trade union organisations trave been pressing for a broader social clause covering work safety standards, union rights and protaction against discrimination

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But other G7 countries are reluctant to reopen the Gatt deal at this stage, and trade experts say it is extremely unlikely that a social clause could be inserted in the face of strong opposition from many

# High pay for the few in a city out of work

By David Goodhart

Just five miles down the road from the jobs summit conference centre in Detroit the brand new Jefferson North Chrysler car plant is a standing affront to much of the G7 debate about joh creation. The highly antomated plant, which produces the Grand Cherokee jeep, is one of the success stories of the town's

revitalised car industry. None of the jobs summit lelegates would object to the 200 robots or the antomated paint spraying and welding at the plant, which reduces the number of employees to about 3.000. But the policymakers would not approve of the fact thet, in a town where unemployment is double the national average at 13 per cent, so much employment is bogged by the

securely employed "insiders". Average weekly working tiours at the two-shift plants are 55 to 60 hours, with average annual take-home pay of more than \$50,000 (£34,246). Most employees work from 6am to 3.30pm, plus three Saturdays in four.

Chrysler and the United

Auto Workers union collude to maximise work and income for those already in a job, and until recently most new recruits were relatives of existing employees. Yet Detroit has lost 250,000 auto-related jobs in the past 10 years and there are 23,000 people on the books of the state employment agency who want to work at Jefferson North. A few hundred of them may be lucky if the plant decides to put in the third shift. Anybody who gets a job will find a plant with barmonious working

relationships and strong powers for organised labour. The UAW not only has a closed shop, it also has equal representation on the key mittees which decide most of what goes on. Mr Charles Matthews, a

semi-skilled assembly line operator, who has worked for Chrysler for 30 years, said: "The hours are long but this is the best plant I've ever worked in." He retires in two months, aged 55. Unlike some other US car

makers Chrysler took on existing workers when the new plant opened up, which meant an average age of over 50. There were big retraining grammes for technicians but training in general seems less important than many

summit delegates assume. One Chrysler supervisor admitted that many of the semi-skilled jobs take only about half an hour to learn. There is no joh rotation for those on repetitive tasks but most workers are part of a small team and training for less skilled workers concentrates on building up team-working skills.

Jefferson North would make only a small dent in Detroit's unemployment problem even if it was maximising rather than minimising employment opportunities. Although the town's prospects are improving, and it has a dynamic mayor in Mr Dennis Archer, the Clinton administration has exposed its unemployment sores to the world by staging the job summit here.

Indeed, Detroit illustrates thet despite the good US job creation record, its unemployment record is less good than the national rate of 6.8 per cent makes it

appear. Mr Robert Reich, lahour secretary, told a summit hriefing that the US figures failed to pick up many people who have dropped out of the labour market altogether. He said that "adult male non-employment" was close to 12 per cent in the US. "That is not all that different from Europe," he said.

But in Detroit, a predominantly black city, even standard unemployment figures are high, although it is difficult to be precise because of difficulties in defining where the town ends.

In central Detroit the unemployment rate climbs to 17 per cent and blacks aged 16 to 19 have an unemployment rate of 41 per cent. Sobering statistics for those Europeans who thought the American labour market had all the answers.

### Mexican financier kidnapped

By Ted Bardacke

The head of Mexico's largest financial group has disap-peared in what police are treat-ing as a kidnapping.

Eyewitnesses sald Mr

Alfredo Harp Halu, president of Banamex Accival, was intercepted hy a group of armed men on Monday morning as be was being driven to work in central Mexico City.

The kidnappers have yet to make public their demands but have been in contact with the Harp family, according to the police.

When news of Mr Harp's disappearance reached the Mexico City stock market, Banacci B shares fell sharply, closing on Monday down 3.86 per cent on very heavy volume. Shares

continued to slide yesterday. The New York security company Kroll Associates is believed to have been brought in to handle the case. It won the release of two businessmen

been targeting Mexican bustnessmen with increasing frequency with over 2,000 kidnappings reported in the past five

#### **US** nuclear test ban extended

President Clinton has told Congress that he is extending the US moratorium on nuclear testing until September 1995. the White House said yesterday, Reuter reports.

White House spokeswoman Dee Dee Myers said the decision was based in part on the restraint of other declared nuclear powers in not resumna's test last October. She also credited the encouraging progress in comprehensive test ban talks since they opened in Jan-

LEGAL NOTICES

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IN LIQUIDATION

Clintons try to divert attention away from the Whitewater affair

### Seeking solace in a friendly crowd

By Nancy Dunne in Washington President Bill Clinton began a

campaign-style swing through New Hampshire yesterday, vowing to keep his eye on domestic policies despite attacks from "people who are giving me bell in Washington." Mrs Hillary Clinton also con-tinued administration attempts to divert attention from the Whitewater affair, stemming from the Clinton's financial dealings in Arkansas in the 1980s, over which they have come under heavy fire from

Mrs Clinton was due to address a rally in St. Louis on the second day of a trip promoting the administration's healthcare reform plan. On Monday night the Presi-dent launched an impassioned

attack on his Republican critics and made a plea for a nationwide debate over what he called the issues of concern This overriding negative, intensely personal, totally political devoid-of-principles

attack is not good for the coun-

try," he said. "It is inconsistent

with the tradition of Abraham Lincoin and Teddy Roosevelt." He described himself as "an

> is good in this country," tie said. "We have to ask people to face hard truth and debate hard issues and come together and think new thoughts about problems that we are frankly not solving today."

> Mr Clinton appeared yesterday morning at a gathering of cltizans in the small New

old-fashioned" man, who believes in the contest between in the friendly New Hamp shire crowd, he found at least good and bad and that good one who agreed with his attempt to refocus the national "We have to appeal to what "I'm 68 years old," one oman told him, "Whitewater

is for canoeing and rafting. Shame on those who would detract and distract from the important work you're doing with universal health coverage and tobs."

Hampshire town of Nashua

where he got heavy support in

"Thank you...bless you," Mr Clinton said.

### Deloitte to pay \$312m

Deloitte & Touche bas agreed to pay \$312m (£209m) to settle a string of government charges thet the hig US accountancy firm failed properly to audit several banks and savings and loan institutions which col-

ligence, claiming that the firm issued clean audits for institutions that later proved to be insolvent.

largest paid by a professional firm involved in the S&L and bank failures.

partners are expected to con-

'husiness necessity" and The Deloitte settlement is not likely to be the last of its

#### Colombian army 'caused deaths' settlement would be paid by Amnesty International, the

London based human rights organisation, yesterday accused the Colombian armed forces and related paramilitary groups of responsibility for most of the 20,000 political kill. ings in the country since 1985, writes Stephen Fidler.

Amnesty said governments had escaped international critiwhich portrayed a "myth" that were mainly to blame.

#### The lawsuits charged By Patrick Harverson Deloitte's insurers, the firm's Deloitte with professional negin New York

lapsed in the 1980s. Yesterday's settlement resolved 15 lawsuits brought against Deloitte by various

government agencies seeking

The settlement is the second

In 1992 accountancy firm Ernst & Young paid \$400m after reaching a similar accord with federal authorities. Although analysts believe that a large part of the \$312m

tribute toward tha cost of the However, Mr Michael Cook. Deloitte's chief executive, described the settlement as a

kind in the long-running S&L and banking affair and further

settlements are expected.

cism in part by hiding behind a public relations smokescreen drug traffickers and guerrillas

kidnapped in 1992. Professinnal kidnappers bave



Settlers ready

to be martyrs

Hebron Jews could spark

war, writes Julian Ozanne

or heroes

A photograph of Rahhi Meir Kehane, the slain Jewish racist who

advocated religiously sancti-

fied Jewisb violence against Arabs, is proudly displayed in

the bedroom of a 13-year-old boy in Hebron, the city that bas become a flashpoint of Israeli-Palestinian violence.

"I don't agree with Kehana but when a boy grows up and his father is stoned and his friend's father is murdered by

Arabs, you must understand why he might see Kehane as a

bero," says the boy's mother,

Rising Jewish settler militancy has become the greatest political threat to the government of Mr Yitzhak Rabin and

the Israeli-Palestinian peace

process. At the least, the set-tlers promise a nationwide campaign of civil disobedience

to resist evacuation from Pales-

tinian areas. At worst, rising

emotions, fears and Jewish religious fundamentalism

could explode into a Jewish-

Arah civil war and even

The 40 Jewish families set-

tled in Hebron are in the van-

guard of Jewish militancy. Hehron is the breeding ground

of the two Jewish terrorist

Jewish-on-Jewish violence.

Mrs Ruth Hizmy.



Rabbi Moshe Lavinger, founding father of the Jewish settlement movement in the occupied lands, sits facing a charge of ignoring army

orders, in Jerusalem yesterday

they are on a mission from God to maintain a Jewish presence amid the 110,000 Arabs who live in Hehron, burial place of the hiblical patriarchs Ahrabam and Jacob, and an area sacred to both Moalem

They refuse to see Hehron as occupied. For them it is an intrinsic part of the land of Israel promised to the Jews hy God. Part of their cultism is reflected in their deep belief they are being victimised, not only by the Arabs but by their "treacherous" Jewish government. They believe all outsiders do oot understand them and are part of a conspiracy to defeat their religious goals.

Like all messianic cults, they have martyrs and beroes and a powerful faith in the sanctity of dying for one's beliefs. They strongly believe in expanding their numbers by hreeding, the average family has six children, and talking to the children is like talking to the

Mrs Shani Horowitz, originally from New York, moved to Hebroo hecause she wanted to live somewhere "where by just sitting I was doing some-thing for the Jewish people."

In passionate and often angry tones, she says the Hebron settlers are like the Hebron settlers are like the early Jewish pioneers who built the state of Israel through settlement. "Hebron is spiritually and geographically the centre of Jewish life. Because we live here, Jews can come and visit the sites and holy places. We are the messengers. places. We are the messengers. We are sitting here for the resi

of the country.

Evacuating Hebron is like evacuating the Wailing Wall.
Habron is the second most important Jewish city after Jerusalem. We are very much on the front line, on a mission as soldiers. We are bolding on tight to the land of Israel. Wa are redeeming this place from being barren of Jews."

The government's timid moves against the settlers has exposed the weakness of Mr Rabin's political will. He fears that acting against the Hebron settlers will fuel right-wing opposition to the peace process and force the government into surrendering a powerful pawn in the drawn-out negotiation

with the Palestinians, But the government's refusal clearly to state the long-term line of its withdrawal from occupied Arab land has bound all 125,000 settlers together in common cause with the Hebron settlers. The belief is that any move against Hebron is the thin edge of the wedge. Most of the cabinet realise that Hebron and some other settle-ments will have to be evacuated sooner or later, the more the government delays, the more strongly organised the

Yesterday, hours before an anti-government demonstrainconceivable that a Jewish Hehron Judenrein (clean of Jews)...The Rabin government has no mandate for an 'ethnic cleansing' of Hehron or to carry out its policies of capitu-

lation [to the PLO]." The settlers are preparing a campaign of fierce civil disobedience against any effort to evacuate them. They bave urged the army to disohey orders, and implicitly threaten violence. "If the government tries to evacuate Hebron it will be a declaration of war against the Jewish people," said Mr Noam Arnon, a Hebron settler. "We are not going to move. We are not going alive. They will have kill us."

Mr Arnon says settler leaders are calling for non-violence because they know that violence damages their cause. But he warns that if the army leaves, Hebron settlers will take up arms against the Arabs in a civil war. Jewish law has a strong prohibition against Jewish-on-Jewish violence, but Mr Arnon says that if the army tried to avacuate Hebron by force, "with deep emotional and religious feeling, people horrible, terrible things might

happen."
With up to 15,000 army issued automatic weapons in the settlers' hands, ten of thousands of licensed bandguns and the possibility of secret arms caches, these are threats the government cannot take lightly. But the more the government delays a political decision on settlements, the more the settlers threaten the fragile peace process, and the stability of the government itself.



Members of the Boerekommando, an extreme right-wing organisation, preparing sandbags as they build defences at the Wonderboom fort, north of Pretoria yesterday.

About 30 of the right-wingers occupied the fort that overlooks the South African administrative capital and have vowed to fight to keep it.

Associated Press.

### Strike hits S Africa gold mine for second day

By Matthew Curtin in Johannesburg

A strike over free political activity halted underground work at the Kloof mine, one of South Africa's most profitshle gold producers, for the second day running yesterday. Kloof is responsible

for about 5 per cent of the country's gold output of 620 tonnes a year.

The strike, by 11,000 of the mine's Gold Fields, Kloof's parent company.

An NUM official said workers had given a list of grievances, including an 16,000 workforce, is the higgest in the

alleged ban on political activity on sector since 1991. It comes in the middle mine property. The union had not received a response and this had led to the strike. A Gold Fields official said

Gold Fields has before now declined to take part in the industry's wage bargaining forum, unlike the rival mining houses Anglo American, Gencor, Johan-nesburg Consolidated investment and Randgold.

### Honesty urged over failure in Africa

By Michael Holman,

A leading British charity yesterday called for an open acknowledgment of he scale of suh-Saharan Africa's development fail

In a stroogly-worded attack on the World Bank's latest report on the region, Oxfam said that bank-supported structural adjustment programmes had failed to "generate sustainable growth aod significantly reduce

The charity, which is heavily involved in Africa, declared that adjustment programmes "were preoccupied with lowering inflation through interest rates and unrealistic money supply targets.

"Poorly planned and sequenced import liberalisation measures" had "exposed potentially competitive local industries to ruioous competition from imports" Oxfam said in its

The British charity accused the bank of "complacency" in tbe face of what it called Africa's "deepeniog development crisis".

The charity also attacked the hank's classification in its report of Zimbabwe as a uccessful adjusting country as bordering oo outright deception"

Zimhahwe's adjustment programme did oot come until operation until 1991, says Oxfam: "Since when there bas heen no sign of recovery in investment or export

### IAEA 'was blocked in N Korea'

The International Atomic inspecting nuclear facilities in tion, the Yesha council of Jew-ish settlements said: "It is ted in its work, the organisation said yesterday, Patrick government could make Blum reports from Vienna "Restrictions were applied, stopping us making some tests," the IAEA said.

The team which spent 15 days in North Korea was able to visit all seven declared nuclear facilities as agreed with Pyongyang last month. Ona of the plants where the experts faced curbs was at the main nuclear complex at Yongbyon, north of the capital. The team will report hack this morning. A formal IAEA board meeting could be called next

#### CFA zone plea

Leaders of saven former gathered yesterday to lohby for more foreign help to cope with a 50 per cent devaluation of their common currency, the CFA franc. Renter reports from Ouagadou

International Monetary Fund officials were present to hear the plea. Tha IMF is rushing through soft-loan agreements to help CFA countries get relief from international creditors.

#### Death for fraud

The mastermind of one of China's largest fraud schemes has been sentenced to death and a former vice-minister jailed for 20 years for corruption in the Reuter reports from Beijing.

Shen Taifu was sentenced or March 4 for organising the Great Wall Machinery and Electronics Group, a pyramidstyle scam that sucked up Yuan 1bn (\$114m) from unsuspecting small investors.

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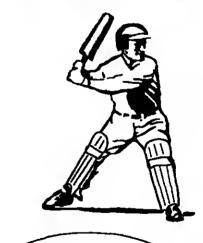
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#### control of Sabah assembly through membership of the By Kleran Cooke in Kota national front.

Mahathir likely to gain

Kinabalu, East Malaysia

The national front coalition government in Malaysia led by Prime Minister Mahathir Mohamad appears likely to assume power in the state of Sabah, East Malaysia, after several members of the dominant local political party voiced support for Dr Mahathir.

Sabah is one of only two states in the Malaysian federation not controlled by parties in Dr Mahathir's national front. In hitterly fought state elections last month the locally constituted Parti Bersatu Sabah (PBS), lcd by Mr Joseph Pairin Kitingan, the chief minister, oarrowly defasted the

national front and retained its control of the Sabah assembly. But in recent days PBS's majority has been threatened

Dr Mahathir has made no secret of his antagonism to the hy a number of defections by PBS and to Mr Pairin Kitingan its assembly members to the in particular. The PBS accuses Dr Mahathir of withholding national front. Yesterday Mr Jeffrey Kitingan, a younger federal funding for Sabah's hrother of the chief minister development and says the who was elected as a PBS national front has paid milassemblyman in last month's lions of dollars to win support elections, announced he was of PBS assembly members. forming a political party which The national front now

would join Dr Mahathir's seems certain to command a national front coalition. majority in the state assembly Mr Jeffrey Kitingan, wbo which is due to hold its first was recently released after meeting on Friday since the being detained for three years recent election. Earlier this on suspicion of wanting to take week Mr Pairin Kitingan asked Sabah out of tha Malaysian the Sabah governor to dissolve federation, has said that Sabah the assembly and for new eleccould progress and develop

# Gatt members warm to China's entry

By Frances Williams in Geneva

Members of the General Agreement on Tariffs and Trade, with the notable exception of the US, yesterday expressed strong support for an early resumption of China's Gatt membership and welcomed recent moves to liberalise trade and relax foreign exchange controls.

However, the row between the US and China over human

non-renewal of China's mostfavoured-nation trading status in the US market, is proving a big stumbling block to faster progress in the negotiations on Gatt entry terms.

China is anxious to rejoin Gatt by the end of this year, so that it can become a founder member of the World Trade Organisation which succeeds Entry negotiations resumed

rights, which could lead to yesterday after a six-month gap, allowing Chinese officials to present details of Beiting's tatest foreign exchange and trade reforms. These included the unification of exchange rates and a managed float of the Chinese currency since January this year, with a ptedge of full convertibility hy the year 2000, as well as tax reform and reductions in a wide range of tariff and non-

The response yesterday was generally favourable. The European Union said the reforms appeared to be going in the right direction, and it and Japan expressed hopes for an acceleration of the negotiations. However, the US said it was not prepared to subscribe to "an artificial deadline" for Chinese membership.

At the same time, western nations are united in pressing China to pay a still higher Gatt

entry fee, including lower bargoods and agriculture, improved market access for foreign services companies such as banks, and better protection of intellectual property rights. Gatt members are also seeking further moves by Beijing to cut state intervention in the economy and ensure trade rules are applied consistently across the country.

ber of Gatt but pulled out in riers to trade in indostrial 1950 after the Communists came to power. The Beijing government applied to re-enter Gatt in 1986 and has taken a full part in the Uruguay Round of global trade talks. However, progress in the membership talks, which began in 1987, has been slowed by human rights concerns as well as the diffi-culty of getting to grips with China's rapidly-evolving trade

exports. It was unlikely that China's quota share would be

redistributed, the association

said. The gain would be for US

Most exporters anonymously

fault the Clinton administra-

tion for taking seriously the president's rhetoric on China

during his election campaign.

Like Mr Cal Cohen of the

Emergency Committee for American Trade, they argue

that the development of Chi-

na's market economy promotes

human rights more than any

Companies complain that the

administration has sent mixed

signals. The commerce depart-

ment put China on top of its

Big Emerging Markets list, a strategy for pushing exports in

10 regions outside the European Union and Japan. At the same time the president and

the state department were issu-

Exporters are weary of the

annual MFN renewal exercise.

They hope that, given any rea-

other measure.

ing threats.

TRADE NEWS DIGEST

### GEC resolves S Korea rail row

GEC-Alsthom said yesterday that it had resolved a dispute among its South Korean subcontractors that threatened to derail a \$2.4hn (£1.6bn) contract to supply the train in grande vitesse (TGV) for the country's new high-speed rail system.

The row erupted last November when GEC-Alsthom selected Hyundai Precision and Industry instead of Daewoo Heavy Industries to head a consortium to huild the TGV under licence in South Korea.

Daewoo protested, calling the decision unfair. It said it had been GEC-Alsthom's main partner when the Anglo-French group bid for the high-speed train contract against Siemens of Germany and Mitsuhishi of Japan. GEC-Alsthom said Hyundai was selected as the consortium leader on the basis of its industrial and technical capability.

Daewoo, expressing fears that it would not have access to technology transfers if it remained a junior partner in the consortium, filed a suit to block talks between GEC-Alsthom and the South Korean government on a final contract.

Following the dismissal of the suit last month by a South Korean court, Daewoo has now agreed to join the TGV consortium with the guarantee that it will have full access to technology transfers, GEC-Alsthom said.

Thirty-four of the 46 TGVs ordered will be built in South Korea. Hyundai and Daewoo will have an equal share in the production of the engines, while Hanjin Heavy Industries will be responsible for the carriages. John Burton, Seoul,

#### Oantas plans China service

Qantas, the large Australian airline in which British Airways holds a minority stake, has said that it wants to re-start a service to China on June 1 - a move which could sound the death knell for the fledgling Australian carrier Australia Air International AA secured rights to China last year from the International Air Services Commission, which allocates Australia's international routes.

At that stage, Qantas, which ceased operations to China in 1987, did not make an application. AA had hoped to start operating in 1993, and even published proposed schedules but the carrier subsequently failed to meet IASC financial requirements. Qantas plans a once-a-week flight to Beijing via Guangzhou, using a Boeing 767 aircraft. Nikki Tait, Sydney.

#### Swiss diesel deal for VM

VM, the Italian diesel engine manufacturer, has won a contract worth more than L20bn (58m) to supply six-cylinder engines for the Swiss army's new Duro troop transporter. The contract is with Bucher Guyer of Niederveningen, which will produce 2,000 vehicles over the next four years. VM, which is based near Bologna and supplies Alfa Romeo, Ford and Rover, is to provide the Ecosystem Power (EP) 638 Ll engine which has a maximum speed of 100km per hour and meets European Union emission standards due to come into force at the end of 1995, John Simkins, Milan.

#### John Brown wins US contracts

John Brown, part of Trafalgar House of the UK, yesterday announced two big US contracts totalling \$70m (£47m), both awarded by European chemicals companies. The larger deal, worth \$40m, is to design and construct a speciality chemicals plant in Theodore, Alabama for Hols, the German chemical company. John Brown has also won a \$30m contract to provide engineering and procurement services for Solvay Polymers' polyethylene finishing complex at Deer Park, Texas.

# Beijing and the business of human rights

#### Nancy Dunne on US company fears of losing their fastest growing market

confronted Chinese officials in Beijing at the weekend on the vexed issue of human rights and trading rights, it was the American who blinked first.

Since last June the administration of President Bill Clinton has vowed to annul China's Most Favoured Nation trade status unless it improved its human rights record. However, in spite of compromising noises made by Mr Christopher as he left Beijing on Monday. China has not only failed to make any "significant" progress to which the secretary of state could point, it has yet even to offer political cover for what appears to be a US

China has had dangled before it the possibility of per-manent MFN status hut has remained insistent that the human rights of its citizens is its own business. Its officials are of the view that the US needs China as much as China needs the US. They might be

US companies have committed or invested \$10bn (£6.8bn) in China. It is their fastest growing export market, according to Ms Pam Baldinger, communications director of the Business Coalition for US-China trade. The group of 1,000 companies warns that loss of China's MFN status, and subsequent reprisals, would put all the investment at risk. American exports to China soared by 19 per cent in 1992

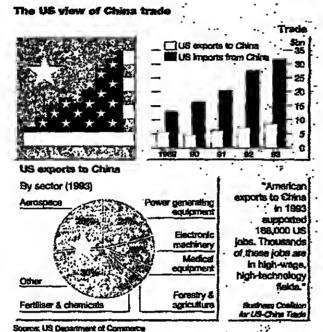
hen Mr Warren and 17 per cent last year. Most of the market is in sophisticated Chinese of State, cated technology, capital equipment and aerospace, industries which provide the high wage johs Mr Clinton has

promised to increase. More than anything it is China's potential that draws hungry companies in droves. According to the Business Coalition, the potential market looks like this: \$40hn over the next 20 years for aerospace; \$90bn over the next seven years for power generation equipment: \$29hn over five years for telecommunications; \$18.2bn over three years for oilfield and gas machinery and \$4.3bn over the next eight years for computers

Withdrawal of MFN would make a gift of these markets to European and Japanese competitors. It would also cost US consumers an estimated \$16bn they save buying cheap Chinese goods.

"Loss of MFN would poison the trade environment," said Mr Bill Lane of Caterpillar. which had a 20 per cent surge in sales of construction and mining equipment to China last year. With Japanese sup-pliers still in the lead, "it's crit-ical that MFN be renewed", he

American Telephone and Telegraph has been making deep inroads in China. Mr Randolph Lumb, government rela-tions vice president for AT&T, said the company can generate \$6-\$8 through trade with its China subsidiaries for every \$1 invested there.



In Guangdong province, the company has beaten formidacompetition from entrenched companies such as Alcatel, the French telecoms equipment maker, and Ericsson, the Swedish group, to win big switching and transmission contracts. Its joint venture in Shanghai is the leading sup-

plier of telecom transmission equipment in the country. Sales of switching and transmission systems are rising. AT&T Network Systems has fibre optic and transmission joint ventures in China with

switching and microelectronic ventures under negotiation. AT&T Bell Laboratories is working with the Chinese government to set up a research and development operation in the country. China also offers hope for

the US commercial aircraft sector, which has been hit hard by competition from the European Airbus consortium and by recession abroad. McDonnell Douglas has been in China since 1975 selling aircraft and producing components. "It took 10 years to get that

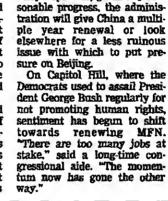


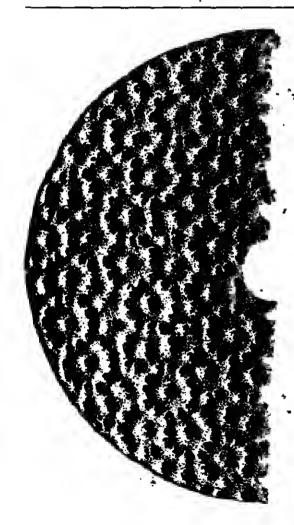
project off the ground," said Mr Mark Schlansky, a McDonnell Douglas spokesman. "It on both sides. Progress had to be incremental. Now we've they've learned ours."

One sector - textiles and

required a great deal of patience. Trust had to be built learned their values, and

apparel - projects gains if China was to lose its MFN status. The American Textiles Manufacturers Institute says China has become the largest foreign US textile supplier, but higher tariffs would cut into its





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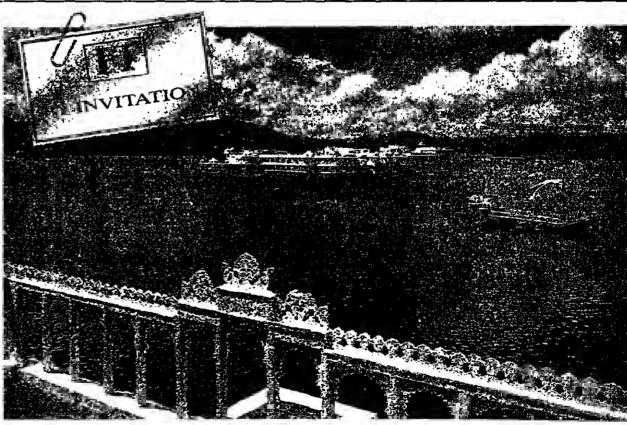
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In New Delhi, capture the magic of the Red Fort at a son-et-lumière. Take a train across country to Agra, home of the Tai Mahal, dine in its shadow as the sun sets. On a day trip to Gawlior explore the 8th century temples and palaces. Be received royally in the romantic city of Jaipur, spend time discovering the wonders of this "Pink City" of Rajasthan.

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BRIEF	ITINERARY

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# London hands car pricing case over to Brussels

The UK government yesterday effectively handed over to Brussels responsibility for implementing the Monopolies and Mergers Commission recommendations for increasing competition in car sales.

in doing so it has acknowledged its failure to make carmakers fall into line with the watchdog's findings and at the same time angered consumer groups which claim that car prices are excessively high in

Britain compared with the rest of

Motorists and other parties must now wait to see what conclusions the Commission reaches in its current review of "block exemption," the selective distribution system which allows carmakers to sell through exclusive networks.

It is this ayatem, requiring an exemption from normal EU competition rules, which consumer groups blame for allegedly making UK car prices higher than in many other

parts of Europe - and on which much of the MMC's own case rests, by the Commission, and that no fur-The exemption, granted in 1985,

runs out on June 30 next year. The motor industry bes already been warned by the EC competition directorate that renewal will depend largely on manufacturers' adhereoce to EU limits on car price differentials across Europe and other signs that consumers are not being disadvantaged.

It is clearly the hope of the UK government that the MMC's con-

ther action will be needed by West-

The MMC'a report on car distribution and sales, published almost exactly two years ago, found that a complex monopoly existed in favour of 24 car suppliers arising out of the exclusive distribution system.

The MMC identified a number of restrictions imposed by suppliers in agreements with dealers as operating against the public interest

oly existed in favour of Ford, as the market leader together with its wholly-owned subsidiary, Jaguar, but did not find that this scale monopoly operated against the pub-

Ford and other makers have dug in their heels against the recommendations, insisting that they are too

prejudicial to their interests. Consumer groups have been consistently critical of both manufacturers and dealers, claiming that mediocre service and repair performance undermines the whole concept on which block exemption itself had been based - namely that cars are so complex, and have such big safety implications, that a dedicated, exclusive sales and after-sales network is warranted.

Consumer groups want a market free-for-all, with maoufacturers obliged to supply cars to virtually any outlet which wishes to sell

### PM firm on fight against terrorism

By David Owen and Michael Cassel

The IRA cannot bomb its way to the negotiating table, Mr John Major told MPs yester day, as the government stepped np efforts to co-ordi-nate a convincing response to the letest wave of terrorist ontrages in a series of behind closed-doors meetings.

A 50-minute meeting yester day morning between the Molyoeaux focused oo the political talks process and security, with the Ulster Uniooist party leader calling for pressure to be put on Dub-Iln to crack down on terror-

The UUP leader later released a tougbly-worded statement describing Dublin's "updated" arrangements for dealing with terrorists as "serionsly flewed" and the lack of results as "quite scan-

He dealt a blow to the gov-ernmeot's hopes of pressiog ahead with the three-stranded political talks process, saying that institutionalised structures for dealing with northsontb relations - such as those advocated by nationalists would not serve any practical purpose and "merely create suspicion."

Pressure for the government to ensure that a tougher line is taken against terrorism will increase tomorrow when the Tory beckbench Northern Ireland committee holds its

next meeting.

Meanwhile, Downing Street hinted that moves might be put in train to stage another meeting between the prime minister and Mr Albert Reyn-olds, his Irish counterpart, before their next schednled get-together in Jnne. One informed sonrce said he was certain the two men would meet before June.

It was announced yesterday that Mr Molyneaux will in April lead a four-man delegation to the United States to meet senior politicians and White House and state department officials.

### Rail companies Bubbles face £500m bill to battle oil spills on rolling stock

By Charles Batchelor, Transport Correspondent

Rail companies which take over British Rail's passenger operations can expect to pay about £500m in charges to lease the trains and carriages they will need.

This sum is in eddition to the £2.2hn which the government announced last month they will pay for the right to run their trains on the national rail network.

The government's programme to privatise BR envisages the creation of three rolling stock leasing companies which will take over BR'a existing trains and carriages and also buy new ones for leas-ing on to the train operators. The operating companies will not be required to lease their rolling stock but most are

expected to do so.
Details of the leasing arrangements bave been eagerly awaited by potential bidders for BR franchises which are expected to go on

sale next year. Negotiations between the department of transport, the Treasury, BR and Hambros, the merchant bank which is advising on the rolling stock companies, are still continuing. The government is keen to establish a commercial regime for priciog the leasing deals but this is proving difficult in the absence of an existing market for rolling stock leases.

The £500m leasing charge will in theory not prove a burden to the companies which take on rail franchises because it will be matched by an increase in the Treasury subsidy. Any increase in the subsidy requirement could however demotivate managers, some of whom have already expressed coocerns at the

amount of track charges they will have to pay. Potential bidders for rail franchises are concerned that very few details have been released about the rolling stock companies less than three weeks ahead of the formal creation of a devolved rail-

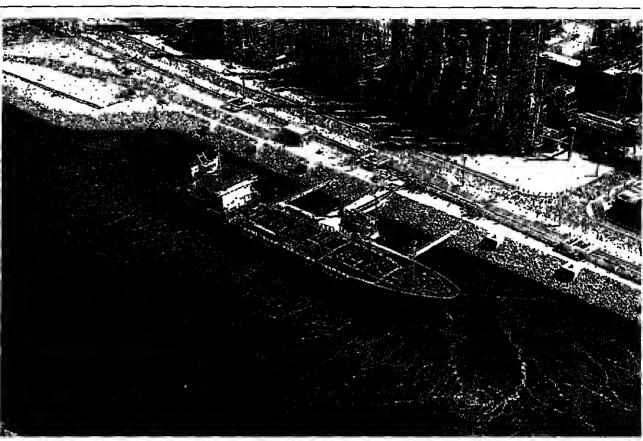
way network on April I. The government plans to establish three rolling stock companies which will each take over a mix of BR existing rolling stock. Two of the rolling stock companies will be based in London, with a third in Sheffield

The department of transport expects to reach an agreement on the leases by June and to have concluded agreements with the present BR operating companies by September or October. No detailed agree-ment has yet been reached on how the leasing charges would be allocated to the 24 BR operating companies which are to be franchised. They are unlikely to mirror the allocation of track charges however. because they will depend on type rolling stock.

Air bubbles have become the latest weapon in the battle to contain small oil spills from tankers, Robert Corzine writes. Shell has installed a bubblebased containment system at its Stanlow manufacturing centre at Ellesmere Port in

Cheshire, pictured right.
A wall of air bubbles released from bundreds of small holes in hoses anchored to the bottom of the Manchester Ship Canel is strong enough to confine minor spills of oil or chemicals, giving crews time to activate more substantial containment systems, like inflatable booms. The system was first tested by the Royal Navy at Plymouth. Captain Brian Davies-Pat-

rick, Shell's marine superintendent at Stanlow, says the bubble barriers are akin to "immediete first aid". The company, however, says it has had few spills from tankers at the Ship Canal berths.



### Planners urged to discourage use of cars

By Charles Batchelor, **Transport Correspondent** 

Local authorities in England will be encouraged to take planning decisions that limit the scale of out-of-town developments and reduce reliance on private cars under guidance issued yesterday.

Mr John Cummer, environment secretary, announced planning guidelines intended to reduce the growth of car and commercial vehicle journeys and to increase the scope for use of public

The planning guidance note represents the most detailed statement on transport policy since the government committed itself to an environmental strategy at the 1992 Rio Earth Summit. Three main aims of the new planning

policy are: To ensure that new developments which necessitate journeys are built where there is a choice of transport. Shops, offices, cinemas and leisure cen-tres should be close together so one journey can serve several purposes. To provide bousing developments with public transport links and nearby local services so journeys can be made on foot or blcycle.

To improve the quality of life in towns and cities - which are efficient transport locations - while maintaining the vitality of the countryside, to reduce the need for long-distance com-

Consistent policies to reduce the need to travel could result in a 15 per cent reduction in fuel consumption and exhaust emissions over 20 years, Mr Gummer said.

The impact of the new policies will be gradual because only 1 per cent to 2 per cent of the country's stock of buildings is renewed each year. But over time the new policy, combined with the government's plan to raise fuel duty by at least 5 per cent a year, will make a

Environmental group Friends of Earth said traffic growth would not be cut while "motorway mania is allowed to continue". The transport department will soon announce a review of its £23bn road-building programme.

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# Consumer spending cut back by tax fears

By Emma Tucker and Andrew Taylor

Evidence that UK consumers reined back their spending in February ahead of next month's tax increases yesterday raised expectations that the government may bave to ease the bur-den of higher tax bills by cutting interest rates again.

The Confederation of British Industry said its new distributive trades survey confirmed that unimpressive sales in January were more than a "flash in the pan". The data showed that last month retailers reported the lowest year-oo-year increase in sales

By Ian Hamilton Fazev.

Northern Correspondent

Cammell Laird, the Merseyside military shipyard which closed

last year, is within weeks of

being sold to a ship repair com-

pany, which plans to employ

1,600 people there by the end of

VSEL, the Barrow-based

nuclear submarine builder

which owns the yard, yesterday confirmed that the sale

was imminent, with a March 31

deadline imposed for comple-

The bidder is Coastline Industries, which already

leases Cammell Laird's dry

docks and other facilities and

has taken on about 600 work-

ers in the last year to fill con-

lines and owners.

Irish Sea trade.

tracts with several shipping

Coastline was founded five

years ago by Mr John Stafford,

a former Grant Thoroton

accountant, to exploit ship

repairing opportunities follow-

ing the recovery of the port of

Liverpool and intensification of

The deal was negotiated in

January by Mr Amin Amiri,

corporate finance partner of

Grant Thornton in Liverpool,

but completion has been bog-

ged down by legal arguments

over site values and long-term

environmental liabilities.

**Cammell Laird** 

shipyard sale

is 'imminent'

since volumes started to rise in Januarv 1993.

But other figures yesterday pointed to robustness in the UK building industry. Construction orders won by contractors were 30 per cent higher in the three months to January 31 than in the corresponding period 12

months earlier. The figures, published by the Department of the Environment, indicated that the upsurge in orders since the autumn was continuing to provide further evidence that the recessioo in the industry may be coming to an

price, while confining future

use of the site to shipbuilding

VSEL has imposed the March 31 deadline to force sale

or withdrawal. Mr Norman

Broadhurst, VSEL finaoce director, said: "There are other

shipbuilding companies oow interested. We gave Coastline

exclusivity, but it is now up to

Mr Jonathan Diggines, direc-tor of the Manchester office of

Murray Johnstone, the Glas-

gow-based fund manager, yes-

terday confirmed it would be

underwriting the deal. The

price is not being disclosed,

but about £10m is understood

to be available. Allied Irish

Banks is providing loan and

working capital for Coastline's

Rival bids for Cammeli Laird

them to complete."

concerned by the slowdown in retail sales growth. Mr Nigel Whittaker, chairman of the confederation's distributiva trades penel, said it proba-bly reflected the fact that some consumers were already anticipating the impact of tax increases due to take

effect in April. Equally, other consumers may also be holding back until they are sure just bow much their pay packets will be affected", he said.

Retailers were confident they would weather the storm" of tax increases. "It will cause a bit of a hlip for a

trends suggest we are going to emerge from it in a satisfactory way," said Mr

Overall, 40 per cent of retailers sur-veyed said business was higher than in February 1993, while 30 per cent said it was lower. The 10 per cent difference between the two figures compared with a positive balance of 15 per cent in January, and was the smallest since January 1993.

Only 16 per cent of retailers said sales were good for the time of year, while twice as many - 33 per cent thought they were poor.

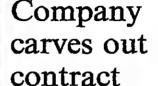
inflation cootinues to show few signs of picking up, according to the survey. A positive balance of 20 per cent of retailers reported that prices were up on 12 months earlier. With the exception of January's balance, this was the weakest price trend since the survey began in 1983.

The survey also showed that imports are increasing their presence in British shops. The CBI said the proportion of deliveries from suppliers accounted for hy imports increased in the year to January. A positive balance of 1 per cent in January rose to 7 per cent in February.

### Company carves out

When Edwin J Shoemaker carved mouse trademark.

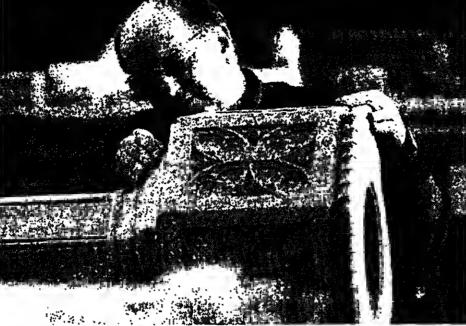
When the £170,000 contract



A small Yorkshire factory specialising in band-carved furniture has won its biggestever order - from the owner of one of America's largest furniture companies

wanted to restore a Lutheran chapel in Monroe, Michigan, in memory of his late wife, be could not find the craftsmen to do the job in the US, despite owning 18 furniture factories. So he turned to the firm of obert Mousey Thompson, in Kilburn, N Yorks, whose pieces bear the distinctive

for pews, altars, doors, and a cruciffx is finished next week, 32 staff will have put in 10,000



Victor Jarvis works on an ornamental font at the Thompsoo factory in Yorkshire

# Fishermen urge renewal of seal cull

are understood to depend oo the European Commission allowing intervention funding Labour and Tory MPs from the area discussed this in Brussels However, VSEL has been consistently refused EU help for Cammell Laird because it made warships - intervention

funding is limited to civil yards faced with closure. If the deal is completed, Coastline will take over Cammeli Laird's all-weather construction hall, three dry docks and its wet basin. Some of the

Scottish Correspondent The highly controversial issue

of culling seals is to be raised by UK fishermen when they meet a government environmental agency later this month. The fishermen say seals are threatening their livelihoods by the damage they cause to fish stocks and to fish-

The fishermen, from the seals working group of the Scottish Fishermens' Federation, will tell Scottish Natural Heritage, the government's

environmental agency for Scotland, that it is time for renewed culling to reduce seal numbers. The group includes representatives of fishermens' organisations in England and

Culling was abandoned in 1978 when the then Scottish Secretary bowed to intense pressure from environmental groups. It is widely accepted that the number of grey seals around the UK coast has risen eince then; the fishermen helieve it has gone up from 70,000 to between 100,000 and 110,000, and is increasing by

about ten per cent a year. About 90,000 grey seals are thought to be in Scottish waters.

Mr Roddy McColl, chairman of the group, says it has scientific evidence suggesting that seals are eating up to 240,000 tonnes of fish a year, of which half is of commercially exploitable species. With some European Union fish quotas amounting to about 100,000 tonnes a year, this means that "seals have a substantial EU quota to themselves."

Scottish Natural Heritage, which will be meeting the

fishermen on March 29 at their request, said yesterday: "We feel the case has to be well proven that seals ere causing the damage before protection can be lifted. So far the evidence is not conclusive."

The fishermen, who last raised the issue of culling seals about three years ago, hope that the SNH might at least recommend carrying out more research into seal numbers and their effect on fish.

Under the 1970 Conservation of Seals Act fishermen can obtain licenses to shoot individual marauding seals.

### Britain in brief



#### Cable seeks TV deal over Wimbledon

The cable television industry proposed co-operation with the BBC over acquiring rights to the Wimhledon lawn tennis championships. The BBC's four-year agreement with the club comes to an end this summer and British Sky Broad-casting, the satellite venture backed by Pearson, owners of the FT, has said it will bid

against the BBC.
The cable industry, which has become more interested in acquiring exclusive rights wants to be able to televise play on the outer courts rarely covered by the BBC. In return cable could help the BBC with the cost of acquiring the rights to televise Wimbledon.

#### VAT cut in Manx budget

Value added tax is to be cut on some tourism-related services in the Isle of Man in a bid to boost the industry. Measures announced in the island's budget also included a six-month penalty and interest remission scheme from April 6 for those with income tax and VAT liabilities relating to income omitted or understated in declarations since April 1987.

The treasury hopes the amnesty, designed to enable people and companies to regularise their liabilities without incurring penalties or interest charges, will produce several million pounds of estimated outstanding tax debts.

#### Curbs sought on wind farms

Restrictions on wind farms are backed by the Wales Tourist Board in a new strategy for tourism. It endorses the policies of the Countryside Coun-cil for Wales which is opposed to wind farms in national parks and other designated

#### Fortex shelves lamb scheme

Hopes that up to 700 jobs could be created in Scotland or central Wales were dashed when the Fortex Group of New Zealand shelved plans for a large lamb processing plant. Fortex blamed the decision on disappoioting half-year results, which it said were due largely to loss of livestock in severe storms in New Zealand.

#### Top military post filled

General Sir Peter Inge, below, became Britain's top military officer in soccession to Sir Peter Harding, who resigned as Chief of the Defence Staff after allegations of adultery.



The 59-year-old officer became Chief of tha General Staff two years ago after service in Hong Kong, Malaya, Libya, and Germany, had been acting as the caretaker military adviser to the government.

#### Kop for sale

Fragments of the stepped terrace known as The Kop at Liverpool Football Club are to be sold for charity. The embankment, on which 20,000 fans can stand, was named after the hillside on which the battle of Spion Kop took place in the Boer War. The terrace is to be bulldozed at the end of the season under new safety guidelines. Pieces of concrete from The Kop, which to many fans is a symbol of the club'e former domination of domestic soccer, are to sell at between £2.99 and £32.

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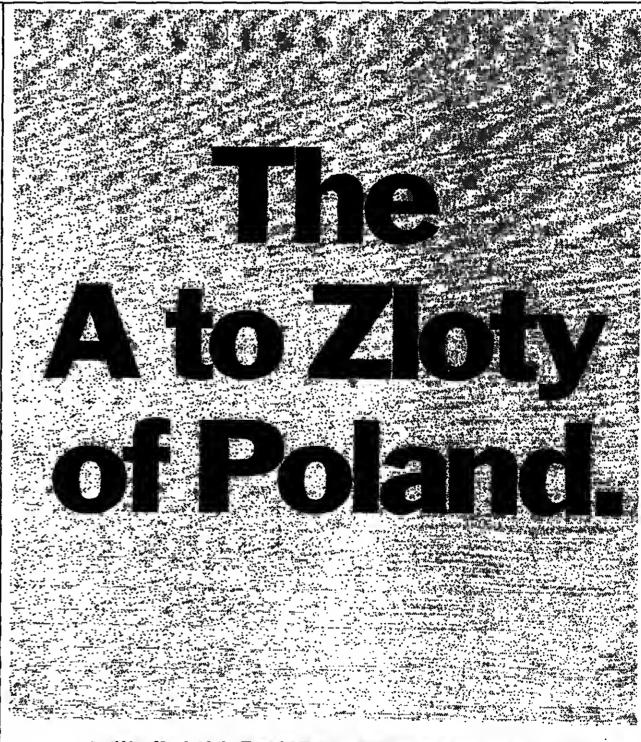
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On Friday, March 18 the Financial Times is publishing an in-depth survey of Poland. Poland is the biggest and most strategically placed country in Central and Eastern Europe with its economy expanding faster than any other European country.

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Among other issues the survey will take a close look at the restructuring of the country's industry and banking system as well as the booming stock exchange. FT Poland Survey.

Financial Times. Europe's Business Newspaper.

Another company taking advan-

### Michael Smith explains how companies can now control electricity costs

elth Smith, buyer of utili-ties at the McDonald's fast food chain, is beaming at a chart of one restaurant's electricity consumption. He likes the power it gives the company's restaurant managers.

Topic Sugar

trible of the

"Look at that," he says. "They've done all the right things there. The consumption falls when it should; the store workers have switched off the cookers and lights when they do not need them. It's a perfect example to show to other stores."

The chart comes courtesy of Eastern Electricity which, from next month, is to supply power and associated services, including diagrams showing past consumption, to 500 McDonald's stores in England and

Eastern's willingness to supply power and other facilities as part of the service, yet still undercut offers from rival power companies, was one reason why it won the business.

In the past few months through-out Britain big companies like McDonald's have been evaluating for the first time a range of offers for power supplies as they and the suppliers gear up for the next phase in the liberalisation of the market.

From April 1 any electricity consumer using more than 100 kilowatt hours at the peak of its demand will be able to buy its supplies from any registered supplier including the 14 mainland UK distributors and the two England and Wales generators. Until now they have had to buy power from their local distributor

The previous limit of 1 megawatt, 10 times the new threshold, encompassed only about 5,000 consumers. From April about 50,000, including businesses, schools, hospitals and eisure centres, will be able to shop around and many are taking advan-

More than 7,000 in the 100kW to 1MW market, a fifth of those eligi-ble, have already made arrangements to take their supplies from a company other than their regional electricity supplier. The industry expects the figure to reach about 15,000 within the next year.

Price cuts have reached 20 per cent for a handful but the majority which have switched are estimated to be making annual savings on their electricity hills of between 4 and 10 per cent. Many of those which have stayed with their regional distributor have also gained financially.

But the benefits of the liberalised market are not just in the price. Companies, or at any rate the large ones, are finding they are in strong position to demand a tailor-made service which can improve their energy management.

As a large company, with all the advantages which that brings for

# The power to choose



Electricity, not burgers: Keith Smith with consumption charts at McDonald's

bulk buying, McDonald's was better placed than most prospective buyers - yet it received offers for tha whole country from just four suppliers of the 14 approached.

Smith was impressed by only one company other than Eastern. "It was apparent that several suppliers were poorly prepared. There was not the expertise to deal with the market. One company, for example, had a very good salesman but poor

"Several of the offers we received had hidden costs," says Smith. Some were able to offer charts showing consumption in each store by the half hour but they wanted to charge extra, on top of the prices

tage of the oewly competitive UK electricity market is Stakis, the hotels and casinos group. Stakis will make significant savings on its electricity hill after a deal with Scottish Hydro-Electric involving the 25 of its 52 hotels and six casinos which are hig enough to be able to shop around for supplies. It expects its £2.3m-a year electricity bill for the 31 units in the Hydro deal to fall by about £250,000. Like McDonald's, Stakis was not spoiled for choice. Bill Gumn, in charge of utilities purchasing for the group, says only the two Scottish power distribution companies were prepared to make an offer covering hotels throughout the UK. Stakis's main requirement was simplicity. "Electricity bills seem to us to be far too complicated with

different charges for maximum demand, for supply and for different times of the day. We wanted a uniform price for each unit of electric ity which is the same for all hotels and for that price to include every-

thing.
"We have limited resources and a single price makes hilling far easier to double check. It is also useful for comparison purposes. If one hotel is using far more units than another with similar occupancy rates we will know there is something wrong. Perhaps they leave everything oo in the kitchen overnight." Both Hydro-Electric and Scottish Power were able to meet Stakis's request for uniform prices but

Hydro's tender was lower. Not all companies, however, have found it easy to shop around. At Fowler & Holden, John Hardy, managing director, badgered electricity suppliers for several months before he received an offer he considered may be acceptable. "At first I could not get suppliers to compete," he says. "They seemed only interested in making decent offers to large companies. But large companies are my competitors and if they are getting big cuts in their electricity bills

want them too." The first six offers made to Fowler would have resulted in its power bill remaining at about £26,000 a year. It was only this week when one company, Powerline, the Midlands Electricity subsidiary, revised an earlier proposed deal to produce annual savings of about £2,000.

The lateness of the proposed offer means Fowler will he unable to change supplier until after April 1, since the electricity authorities need 20 working days' notice. Hardy says the delay has been worthwhile.
"Unless we had been prepared to
wait, the introduction of competition would have meant virtually nothing to us."

# Seven strategies to change your company

There is more than one way to tackle organisational upheaval. Adrian Furnham considers the options

he trouble with the idea and practice of organisational change is that it is both boring and anxiety provoking. The oumber of magazine and newspaper articles, courses, memos and self-help books dealing with change is overwhelming.

"Adapt or die; change or decay" is not a simple rallying cry for the senior manager, it is a reality. But the question is bow to bring about successful change to minimise pain.

Managers choose different strategies with varying

· The fellowship strategy: This approach relies beavily on interpersonal relations, using seminars, dinners and events to announce and discuss what needs to be changed and bow. People at all levels are listened to, supposedly treated equally and conflicting opinions are expressed This "warm and fuzzy" approach emphasises personal commitment over ideas - the change process may have serious problems getting going as a consequence. Because this strategy is averse to conflict it can miss crucial

fellowship-types leave the organisation and can only be replaced by those who have a need to belong. · The political strategy: Here the power structure is targeted by attempting to influence the official and unofficial leaders. The strategy seeks to identify and persuade those in the organisation who are most respected and who

issues and even waste time. Many

have large constituencies Political strategists flatter, bargain and compromise to achieve their ends. But this de stabilises the organisation because of ongoing shifts in people's political stances. Maintaining credibility can be difficult because the strategy is so obviously devious. Getting people to show their true colours in this way is never simple. The economic strategy: The cynical economist believes that money is the best persuader. The person who controls the purse

strings can huy or change anything. Everybody has a price. This is the rational "homo-economicus" approach that assumes people act more or less logically but that their logic is based on economic motives. But "buying people off" can be costly and the effects short-term. The strategy also ignores emotional issues and all questions

besides bottom-line profit. • The academic strategy: This approach assumes that if you present people with enough information and the correct facts they will accept the need to change. The academic strategist commissions studies and reports from employees, experts and consultants. Although such strategists are happy to share their findings it is difficult to

Most people do not like being treated as machines and so do not feel committed to changes

mobilise energy and resources after the analysis phase. Analysis paralysis often results because the study phase lasts too long and the results and ommendations are frequently out of date when they are published.

 The engineering strategy: This is the technocratic approach that assumes that if the physical nature of a job is changed, enough people will be forced to change. The strong emphasis on the structural aspects of problems leads to a sensitivity to the environment which is particularly helpful in unstable situations. The concern over channels of communication can prompt structural change, but fails to commit most people. Most people do not like being treated as machines and hence do not feel committed. Such change can also break up happy and efficient teams. The strategy is limited because only high-level managers can really understand it, it is impersonal and it ignores the

question: What is in this for me?

• The military strategy: This approach is reliant on hrute force and sometimes ignorance. It is at times used by the military and the police, students, pressure groups and political parties. The emphasis is on learning to use the weapons for the fight. Physical strength and agility are required and following the plan is rewarded. But the change enforcer cannot relax, in case the imposed change disappears. Furthermore, force is met by force and the result is ever-escalating violence. The confrontational strategy: This high-risk strategy reckons that if you can arouse and then mobilise anger in people to confroot the problem, they will change. Much depends oo the strategists' ability to argue the points, as well as being able to stir up anger without promoting violence. This approach encourages people to confroot problems they would prefer not to address but tends to focus too much on the problem and not on the solotion. Anger and conflict

teod to polarise people and can cause a backlash. Few of these strategies occur in isolation. Bot they do have different basic assumptions about who to influence, bow to proceed and what to focus on. Each tends to be effective at addressing certain change problems but very bad at dealing with others. The political strategy has problems with credibility; the economic approach with maintaining change, and the academic with implementing findings. But for the professional who must demonstrate his worth to the organisation by implementing change, any of the above might

help him. The trouble is that strategies tend to be chosen by chief executives for personal reasons rather than as a result of any well-considered set of options. An inappropriate strategy may cause more trouble than the initial reason for change.

The author is head of the business psychology unit at University College London.

### GLOBAL FUND MANAGEMENT Which Way are the Markets Moving? THE EXPERTS DEBATE THE TRENDS AT THE DOLDER GRAND HOTEL

IN ZURICH ON MARCH 23x24 - 1994

THE SECOND INTERNATIONAL HERALD TRIBUNE INTERNATIONAL FUND INVESTMENT CONFERENCE

#### MARCH 23

CHAIRMEN'S OPENING REMARKS Richard McClean, Publisher & Chief Executive, International Herald Tribune, Paris

Sinton J. Osborn, Publisher, International Fund Investment, Paris THE BOND AND CURRENCY SESSION

Kermit Schoenholtz, Managing Director and Head of the European Economic and Market Analysis Group, Salomon Brothers International Ltd., Landon Stefan Collignon, Director of Research, Association for the

Monetary Union of Europe, Paris Heinz Fesser, Head, International Bond Department, DWS Deutwhe Gesellschaft fur Wertpapiersparen m.b.H., Frankfurt

Howard Flight. Joint Mauaging Director, Guinness Flight Global Asset Mauagement 11d., London Michael Rande, S.V.P., Bank Julius Barr & Co., Zurich EMERGING MARKETS INTO THE 21ST CENTURY

I. Mark Mobius, President. Templeton Emerging Markets Fund, Inc., Singapore LUNCHEON ADDRESS

Brian M. Storms, Managing Director - Europe, Fidelity Investments International, Luxembourg

THE DERIVATIVE AND ALTERNATIVE INVESTING APPROACHES SESSION Marc Landeau, Chairman, Olympia Capital Management, Paris Marko Dimitrijevic, President, Everest Capital Ltd., Bermuda Lawrence D. Hite. Managing Director, Mint Investment Management Co., Hoboken, New Jersey

The Hon. Peregnine Moncreiffe, Chief Executive Officer, Buchanan Partures Ltd., London Lawrence Staden. Trading Adviser, GNI Fund Management,

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#### MARCH 24

they had quoted, and that was

already more than Rastern's quote.

Smith says McDonald's has

become much more conscious of

energy costs in the past two years

and now sees the half-hourly hreak-

down of consumption as an essen-tial management tool, "It gives the

manager of a store a picture of what

has been happening in the store

even at times when he is not there."

McDonald's estimates that it will

save £1.4m on its energy bill each

year as a result of the deal with

Eastern, which is worth about

£18m. A separate deal in Scotland

for the company's 20 stores there is

leading to savings of more than 30

Robert R.P. Michaelson, Global Chief Investment Officer,

Citibank Global Asset Management, London Maria-Elena Carrion, Vice President and Head, Lalin American Investment Team, Bankers Trust, New York

THE EMERGING MARKET SESSION

Gary Kreps, Chief Investment Officer, Global Fixed Income, G.T. Capital Management, Inc., San Francisco

Stephen Swift, Head of Global Equities, Credit Suisse Asset Management I.d., Landon

Henry D.C. Thornton, Investment Director, Credit Lyonneis International Asset Management (H.K.) I.id., Hong Kong Philip L. Tose, Chairman, Peregrine Investments Holdings I.Id., Hong Kong

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Roger Nightingale, Investment Strategist, Lathwest Serurities Ltd., London

THE EQUITY SESSION

Nicholas Knight, Head of Strategy, Nomero Research Institute-Europe Lid., London

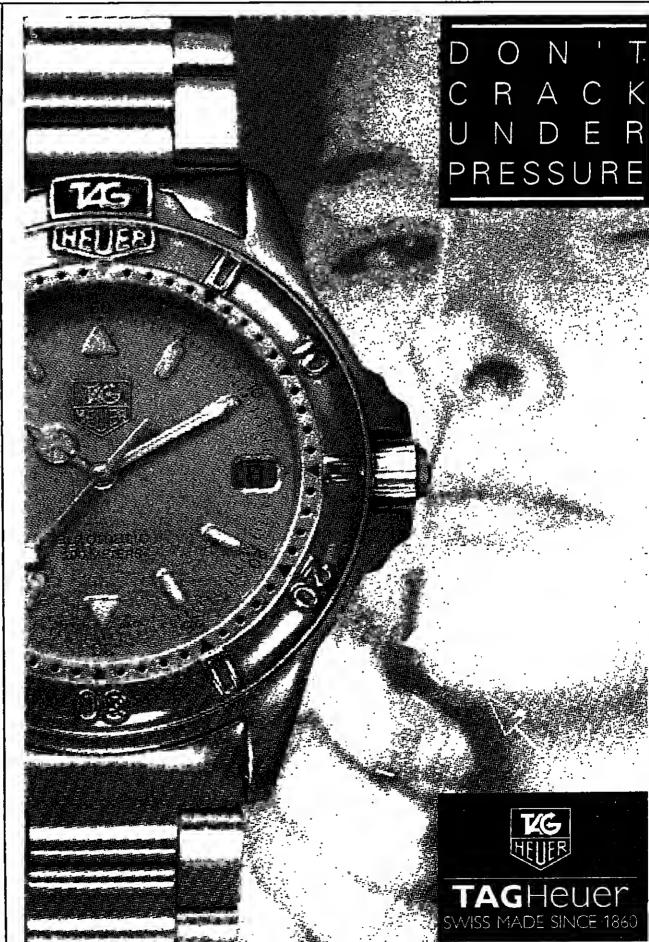
Alan J. Albert, Senior Managing Director, Merrill Lynch Asset Management U.K. I.Id., London

Heiko H. Thieme, President, Thieme Associates, Inc., and Chairman, American Heritage Fund, New York Beat Wittmann, Head of European Equities, UBS Asset

Management, Zurich Penclope A. Dobkin. Portfolio Manager, Fidelity Investments,

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**WORLDWIDE WASTE** 

### Big boys' game comes under fire

Germany's national recycling scheme faces growing attack, writes Ariane Genillard



Wuppertal, a smoky town in coal mining region of northern Germany, is hardly inspiring. But for Ernst von

of Germany's most prominent eovironmentalists, this is just the place for an institute devoted to the fight against pollntion. Von Weizsäcker, of the Wuppertal Institute for Climatology, recently announced that he was retiring as president of the advisory council of Duales

System Deutschland (DSD), Germany's three-year-old national recycling scheme Von Weizsäcker calls Germany's most ambitious environmental project a "dangerou manipulation" which "serves the throw-away society". He has joined the swelling chorus of

critics who claim that the waste disposal scheme is misconceived. Von Weizsäcker's criticism is directed at the monopolistic structure that characterises DSD and makes the country's recycling industry increasingly concentrated in the hands of a

few ntilities and energy groups. DSD was created in 1991 by 600 companies in response to the packaging law drawn no by Klaus Töpfer, the environment minister, This makes manufacturers and retailers responsible for collection and recycling of packaging waste. It also sets collection and recycling quotas, which increase over time and must be enforced

Industrial groups in Germany set up DSD as a national waste collection scheme, which signed contracts with waste recyclers. To meet the cost of collection, DSD imposes a fee, borne mostly by consumers through higher prices and shown as a green dot on packaging.

Because the law insisted the system should be nationwide, DSD quickly spread to nearly all German cities. Few German

households are without the special yellow bins for packaging waste

and made sure the contracts did

Fraundorfer, managing director in the German office of Arthur

D Little, the consultancy group. Large utilities and energy groups have also moved into

waste recycling. RWE Entsorgung

the waste management subsidiary of RWE, Germany's biggest utility

group, has a turnover of more than DM2bn (£700m). Three years

old, it has acquired 100 companies in its expansion drive, and DSD

accounts for 15 per cent of its

Other German concerns have

also stepped in, with Veba, the

Düsseldorf-based energy group,

plastics in a recycling plant linked

to its oil refinery in Bottrop. And

subsidiary of Thyssen, the big

engineering and steel group, is

involved in building up recycling

Germany lies with those who can

invest large sums in complicated

recycling plants. High investments

According to the Environmental

also justify long-term contracts, DSD officials say.

Council, an advisory body to the

some 40 per cent of the domestic

waste market in coming years,

DSD says the concentration

started before it came into being, but medium-sized companies

claim the DSD's structure favours

as Unilever and Procter & Gamble

who have no interest in meddling

with the small players. It is a big

The government has meanwhile

ignored critics from the smaller

packaging law achieved a 13 per

cent drop in packaging waste in Germany in 1993.

companies. Töpfer says his

process in the industry had

large companies, "DSD is

boys' game," says one

entrepreneur.

Next week: US.

dominated by companies such

federal states, four or five companies are likely to share

processing 120,000 tounes of

Thyssen Handelsunion, a

plants in eastern Germany.

These groups argue that the future of waste disposal in

not escape them," says Franz-Jose

with green dots. Three years after its creation DSD's quasi-monopoly has angered middle-sized German recyclers and environmentalists who say the giant waste collector zing ont of a profitable market the small players who represent a pool of innovation for new environmentally-friendly

ling technologies. The Federal Cartel Office has admitted there is a problem but argues that DSD is only fulfilling the packaging law. Undaunted, the medium-sized companies are ensifying their lobbying efforts within government circles. They point ont that in 1992, more than 140 waste management companies were acquired by larger groups.

'Innovation and market strategies for recycling specific waste products no longer have a chance'

compared with 60 in 1990. The medium-sized companies are also protesting against 10 year-long contracts signed by DSD with municipalities and with the large ntilities and energy groups. "Innovation and market strategies for recycling specific waste products no longer bave a chance," explains the federal association of medium-sized companies (BVMW). The association is proposing continuous tender processes and price negotiations, which would allow them to bid for DSD contracts. They add that such measures would also open the

market to foreign competition. Waste disposal companies created by municipalities now make up one in three of DSD's clients. "Municipalities immediately saw a tremendous source of revenue in this business

novel approach to one of the US's most common but most intractable environmental problems is being tested by a team of scientists at a US federal uranium-processing facil-

The field test has nothing to do with radioactive waste or nuclear safety, however. The scientists are seeking a process for cleaning up leaked fuel, industrial solvents and other substances which have contaminated the soil at thousands of sites in the US. The technology raises new hope that many of these areas of land can return to productive use. It also promises to speed up the faltering 14-year effort to an up the worst of the areas.

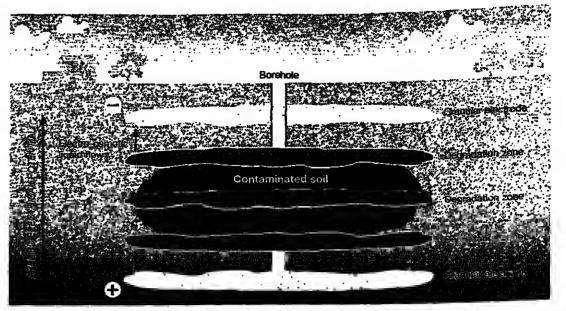
"One of the things that has hampered progress is a slow pace of technological innovation," says Bill Roberts, a toxic waste expert at the Environmental Defence Fund, e private lobbying group. Of the 1,200 to 1,300 sites designated as the most dangerous under the Superfund programme, set up in 1980 by the US government's Environmental Protection Agency (EPA) to clean up contaminated land, about 200 have been reclaimed so far.

The new technique, known as the lasagne process, involves using electrical current to draw wastes through "treatment zones" in the soil. Toxic waste materials can often be rendered harmless in the zones, which resemble the layers of a lasagne, without being brought to the surface. Scientists say the pro-cess is effective in densely packed soils that are nearly impossible to reclaim with current techniques. It

may also prove cheaper and safer.
As part of a wider initiative announced in January by the EPA, the project highlights the Clinton administration's policy of encourag-ing co-operation between the public and private sectors and among rival companies in the fight against pollution. Three big US industrial groups, Monsanto, DuPont and Gen-eral Electric, have taken leading roles in the project, together with the EPA and the Department of

Energy. "The common denominator of the primary collaborators was that we each had difficult and expensive soil clean-up problems to deal with and were frustrated by the lack of cost-effective technology to do the job," says Philip Brodsky, director of corporate research and environmental technology at Monsanto, the big US chemical group. "The EPA's willingness to play a matchmaker role was critical in getting the process rolling."

Soil remediation lends itself to joint research and development. "There are economies of scale that come into play bere," Roberts says. There is no long-term return in a company investing in this kind of new technology by itself."



# Lasagne recipe for soil renewal

A new technique for salvaging contaminated land is being tested in the US, as Frank McGurty explains

The effectiveness of the lasagne process has yet to be demonstrated, however, with testing so far limited to small-scale trials. The Kentucky site where its evaluation begins this spring was chosen because it is typical. In an isolated storage area at the facility, the solvent trichloroethylene, widely used as a paintstripper, has penetrated the dense soil. The EPA says it will be "a couple of years" before comparisons of the process's cost and efficacy

Currently, the main approach to dealing with contaminated land is to excavate the toxic material and either incinerate it or seal it in watertight pits. However, toxic substances, leaking from ruptured tanks, for example, may spread deep below the surface. The expense is also prohibitive, and the risk of human exposure is great.

If the contamination is deep, but the soil is relatively permeable, wastes may have collected in ground water, which can be pumped to the surface and neutralised. But in soils with impermeable clay layers, so-called "pump and treat" methods are ineffective. Residual contamination usually infiltrates fissures in the hard clay

below the ground water and eventually seeps back in. the treatment zones. Alternatively, ally seeps back in.

a solution in such cases. Brodsky, who initiated the project, says various geological conditions are present in most sites and it is impossible to pinpoint which may be suitable for the lasagne treatment. But the technology may contribute to an overall solution in a substantial proportion of them,

Brodsky's idea was to combine three existing technologies.

First, a process called electroosmosis flushes the contaminants

out of the clay fissures. A cathode is inserted into the ground, which emits low-voltage electrical current that pulls the positive ions in the waste droplets at the rate of about once inch a day.

Second, a series of "treatment zones" - the lasagne's layers - are carved in the soil. The top and bottom strata are filled with an electrical conductor, such as graphite. Waste gathers in the middle layers when the current is switched on. The third step deals with the contaminated material once it is there.

Often, catalysts are available to

help convert hazardous compounds

to benign substances once inside

degrade the waste organically are being developed by a number of companies, including Monsanto, DuPont and GE. Another option, used in the Kentucky test, is to put activated carbon in the treatment zones to absorb the contaminants. The new technology has surfaced at a propitious time. Last month,

"bioremediation" systems to

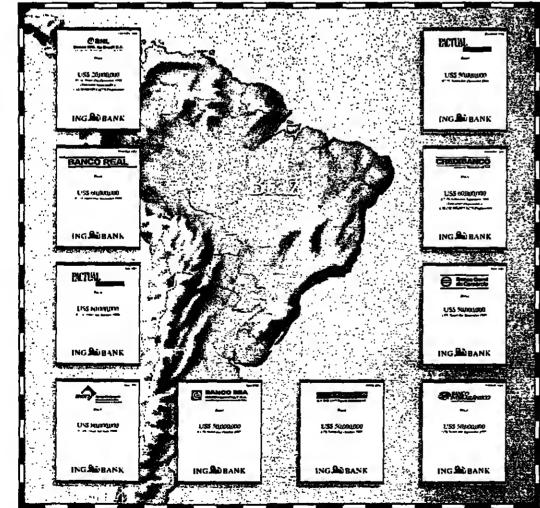
the EPA proposed sweeping revisions of the Superfund law, following widespread perception that it has failed to achieve many of its

Among its proposals, the EPA would ease standards for cleaning up some Superfund sites in an effort to encourage redevelopment of abandoned land. More importantly, the new accent on flexibility is likely to spill over into state and federal rules applying to cleaning up the thousands of waste sites not covered by the Soperfund pro-

Even if the lasagne project fails, Brodsky believes the joint effort will continue. "The collaborative paradigm has already proved very productive," he says, citing advances in bioremediation, soil flushing and other areas.

### No.1 Lead Manager of Brazilian Eurobond Issues in 1993.

No.1 in terms of number of deals, excluding own issues (source: IFR/SDC OmoiBase)



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### **PEOPLE**

#### Carlton adjusts its managerial contrast

Carlton Communications moved yesterday to integrate its ITV operations following Its recent acquisition of Central Independent Television.

Andy Allan, right, managing director of Central, is to become chief executive of Carlton UK Television from mid-April A new managing director of Central Television, yet to be appointed, will report to Allan, who will also be responsible for the sales operation of the two ITV franchises, the largest in the ITV network.

Allan, 51, has worked in broadcasting for nearly 30 years, beginning as a presenter and producer and later becoming a programme editor in the light entertainment department of ABC television. He is a former bead of news at Thames Television and joined Central as director of programmes in 1984 from Tyne Tees Television, where he had been director of programmes and deputy managing director. He is also a governor of the National Film and Television

Nigel Walmsley, the present chief executive of Carlton Tele-

vision and an administrator rather than a programmemaker, will move to the headquarters of Carlton Communi cations as the main board director, with overall responsibility for group broadcasting.



Both Carlton Television and Central will continue to operate under separate boards, as part of the terms of their

broadcasting licences. "The opportunity to take responsibility for lTV's two largest broadcasters is irresist-ible," says Allan. Leslie Hill, chairman of the ITV Associa tion for the next two years, remains chairman of Central.

#### Perlin leaves Sears and goes shopping for himself

House-cleaning continues at the top of Sears with the resignation of Howard Perlin, the director in charge of acquisitions and disposals; he has been on the board since 1984. Perlin started seven years before that as personal assistant to Geoffrey Maitland Smith, the then chief executive

Perlin, 47, says that, having masterminded the disposal of Satellite Information Services last month, be has brought the group to "where it wants to get, for the moment," with the siness focused on retailing and home shopping.

Since Liam Strong came in as chief executive in early 1992, there has been a rapid turnover of executive directors. Aside from Roger Groom, who came on to the board in 1991. Perlin was the only execntive director who remained from the pre-Strong era. Strong's own difficulties in changing the culture at Sears ware illnstrated towards the

end of last year when Stephen Park, the finance director he bad brought in from Hanson just 16 months previously,

Perlin, who joined Sears from First National Finance Corporation, reckons be has "probably gathered more experience than most merchant bankers, having completed approaching 100 transactions, including 30 MBOs" in bis time with the group. Disposals in which he bad a hand included William Hill and Asprey and be was also involved in the acquisition of

He now plans to pnt this to good use by setting up his own private consultancy - rery moch a one-man-band ~ with the aim of providing corporate finance and business strategy advice across a range of indus-tries. He is also building up a portfolio of non-executive directorships, and bas one public company already

#### customer runs the bank Even before taking up his role in the new post of finance distributing products to cus-

director for National Westminster's UK branch business, Paul Biddle has a related task to perform: to become a Nat-West customer himself. In moving from being

NatWest's newest

finance director for Digital Equipment, the computer group, Biddle sees himself becoming a NatWest bank cusomer but not a banker. He says that he regards "the business I'm joining as funda-mentally a retailing business -

it just happens to be financial products they're selling," be says. He believes his new job which be takes np in mid-April - will enable him to

draw on his experience ln ndustry. In the past he has worked for Unilever and Rank Xerox, following his training as a chartered accountant. ears ahead will be to find the

The priority he sees for the right balance of ways of

tomers, through electronic and telephone banking, as well as the traditional branch net-Martin Gray, chief executive

of NatWest's UK branch banking, said that Biddle's responsibilities would include developing and setting the financial strategy for retail banking operations; managing the budget planning; and liaising with other parts of the group on long and short-term financial strategies.

In creating this new role is NatWest implying it may have missed ont in the past, through not having a finance director for the UK branch

Biddle says only that he suspects they have not pnt in place the appropriate manage ses - such as nlanment proces ning and budgeting - which "almost taken for granted In the industrial environ-

### Wheatley joins with Ashtead

Alan Wheatley, a former senior London partner of Price Waterhouse, has been appointed a non-executive director and depoty chairman of Ashtead group, the fast-growing plant hire company.

Ashtead, which began as a

£458,000 management buy-out ten years ago, was floated on the unlisted securities market in November 1986 and was the last winner of the USM company of the year award. Its market capitalisation has risen from £8m to £127m and pre-tax profits have jumped from £533,000 to around £5.2m in the current year, according to some stock market estimates.

Chairman Peter Lewis, 53, who founded the company with managing director George Burnett, 46, says that the company has grown to a stage where it needs a non-executive director with "bigger company experience". Wheatley, 55, who stepped down as chairman of 3i last year, is a non-executive director of N M Rothschild, Britisb Steel, Forte and Legal & General.

other non-executive appointments: ■ Prancis Watts, a partner in Reeves & Neylan and former vice-chairman, as chairman at

KENT RELIANCE BUILDING

SOCIETY. ■ John Herrin, chairman of Powerpike and PRP Optoelectronics and retired md of Crystalate Holdings, at Mion Electronics, part of TUNSTALL

GROUP.

■ Patrick Thomas, md of Hermes, at WILLIAM GRANT & SONS. Billy Carbutt, a partner at

Ernst & Young, at COMAC GROUP. ■ Peter Ward, md operations of Vickers, at BRIDON. ■ Sir Robert Andrew at

SOUTHEND PROPERTY HOLDINGS; John Main bas Lawrence Ziman, senior

partner of Nabarro Nathanson, ■ David Bowes-Lyon, who had

been responsible for Union Discount's operations in Scotland and is a director of Christie's Scotland, as chairman at AIT-KEN CAMPBELL on the retirement of Billy Carmichael. ■ Kenneth Baker MP and Sir David English at ENCOM, the

subsidiary of Bell Canada International. Mercury Communications and Jones Interca-

■ John Rudgard, chief execu-tive of H.P. Bulmer Holdings, at WYEVALE GARDEN CEN-

Ballet in Paris

'Etoiles' go

for gold

very considerable mettie. So, at the week-

end, the aspirant étoiles, feet as hright as their hopes, technique as hurnished as their confidence in their training, made a

hid for glory. It was, as always, an exhila-

rating spectacle. The Palais Garnler was

crowded and the atmosphere charged with

that special French belief in gloire. And on Saturday afternoon the young went for

Chief ballet-master Patrice Bart centred

this year's sessions around the Romantic ballet. So there was Bournonville, looking shall we say - a hit French-polished,
 and evocations of Marie Taglioni's roles:

the enchanting Vivondière sextet which has survived for a century and a half thanks to notation, and Petipa's Paquiro

trio. We saw golden gifts; we must hope

for golden futures and golden rewards. Certainly the performance demonstrated the grace and security of French training the Opera's hallet school produces superh talent year after year - and the technical and artistic assurance that the

The style is Franco-Italian, hrilliant in

beaten steps and turns, stylish and sophis-ticated as to feet - the girls have virtues

in point-work undreamed of hy British

teaching. There is nothing anemphatic or

undnly modest about what we see, and no

English Missery (I'm tempted to write "English misery"). The young are there on stage because they want to succeed; failings have to do with a desire for public

spproval; bnt regardez-moi is not the

worst of mottos. Lyricism is at a preminm

a famons dancer described it to me as "dancing too slowly" – while that gran-deur of scale and phrasing we admire with Russian training is largely absent.

But in matter of polish, of physical wit

and clarity - the language fast, light, quickly accented - the Jeunes danseurs are a delight. I loved the sextet from Nap-

oli, done with southern vivacity, and was

charmed by Sandrine Henault's exquisite

feet in the Flower Festival in Genzono

duet: every step was diamond-cut. Her partner was Eric Camillo, hnoyant, bean-

tifully sure, and playing with real charm.

Equally fine Bertrand Belem, who sizzled

through devilish solos in La Vivandière, and Paquita, and Gil Isoart as James in the second act of La Sylphide. Why, con-

science asks, cannot our young Royal Bal-

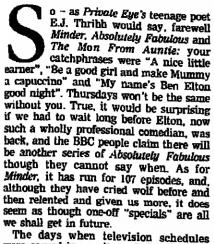
Opera engenders in its dancers.

he Paris Opera Ballet occasion-

ally gives its brightest young

dancers s run of special perfor-

mances in which to show their



were carved in granite and changed with the seasons just three times a year, seem to have gone for ever. Series which run for even 13 episodes, never mind 26, are now rare. Switch on ITV next Thursday at 8.30. the time when Minder has been going out, and you will see the first in a half-hour series called Outside Edge, worked up by Richard Harris from his splendid stage comedy about oddly matched couples in a cricket club. So far there are just seven

Meanwhile, if you switch on ITV at 8.30 meanwhile, it you switch on ITV at 8.30 tomorrow night, you can make an interesting comparison. Filling in for just one week is a *Minder* repeat, the first episode ever made, called "Gunfight At The OK Laundrette" ta spelling which could explain the title of Hanif Kureishi's 1985 cript the Regulifial for the content of the second of th script My Beautiful Laundrette). From the upbeat signature time to the location filming of London, from the central importance of the tough Terry McCann character to the subordinate role played hy George Cole's laughable Arthur Daley, this shricks of what it actually was: an effort by the Thames TV subsidiary Euston Films to take the most notable aspects of The Sweeney and turn them into a vehicle for Dennis Waterman who had played the rough diamond sergeant in that police series. When you see in this first *Minder* episode armed police leaping from a Transit van, filmed from overhead, there is no mistaking the programme's antecedents.

11:55

As time went by Waterman's limitations and Cole's strengths became clear, and the centre of gravity changed. Once McCann ceased to be the flywheel of the series there was less need for violent action and Minder became more a comedy of manners and character. Making the last episode mirror the first, by having Arthur instead of his minder taken hostage, served to emphasise the ways in which it had evolved. On the other hand Absolutely Fabulous has rarely been anything more than a comedy of manners. There have been one or two powerful inventions to relish, for instance the loathing of Patsy, the sixties reprobate, for Saffron, the sanctimonious greenie teenie, a loathing which cuts right across the grain of today's adulation of yoof and environmental agonis-

However, that has been the exception, not the rule. The rule in Ab Fab has been a type of comedy which relies upon dialogue in a way that makes it almost as suitable for radio as for television. Interestingly, and somewhat ironically, the comedy series starring Dawn French, Mur-



George Cole as Arthur Daley in 'Minder', which leaves our screens this week along with 'Absolutely Fabulous' and 'The Man From Auntie'

Television/Christopher Dunkley

# Farewell to a nice little era

der Most Horrid, which now provides a comedy substitute on Thursday nights, is far more concerned with dramatic "business" and the physical aspects of comedy. (Perhaps French and Saunders could get together and pool their varied talents; what a partnership...) Unlike so many series. Murder Most Horrid fully justifies the phrase "situation comedy".

In the opening episode French's attempt to hang herself was interrupted by the arrival of a professional assassin intent upon killing a man in a building across the street. She fits French with a walkle-talkie and sends her across to do the dirty work, but security guards present problems. Persuaded over the r/t to offer them "hlow jobs", a phrase which means nothing to her, French humps them off

one at a time in the gents. Written by Steven Moffat, this had the same sort of appeal as A Fish Called Wanda, Remarkahly Episode 2, with a script hy Paul Smith and Terry Kyan, proved equally good and just as funny, with French appearing to be the unbearably gossipy hostage of a bank robber but in the end turning all the tables.

The small spate of new series in what would once have been mid-season was swollen on Sunday night by two in succession from BBC1: yet another comedy, and yet another drama series about an oddball police detective. On the evidence of the opening episodes, they do not look likely to challenge French or Saunders for comedy laurels, or Minder for the qualipop drama crown. The comedy, Honey For Tea,

stars Felicity Kendal as a drop-dead gorgeous American widow who has brought her hunk of a son, Jake, to Cambridge to inveigle him into the college funded by his late father, while wheedling herself a job in the hursar's office.

It is a good enough scenario, but Michael Aitkens, creator of the superh Waiting For God, has mystifyingly opted for Amer-Ican and British stereotypes which are two generations out of date. Silly ass Camhridge dons baffled by Americanisms went out with mortar boards: today they take their cua from David Lodge and earn fortunes on the international conference circuit. And rich Americans, raised on a PBS TV diet of British costume drama, do not split their sides at the notion of hunting anything as small as a fox.

occasion showed, she has been adventur-

ous in learning new music, while the spon-

taneity has been going out of the old

Perhaps a singer needs constant renewal

in a wheelchair! Oh no, Ironside. Well make him an antique dealer then - damn, Lovejoy. How about a gourmet cook? Yes, that'll do . . " Still, you never know: Minder was produced to a formula with a purpose rather than hursting from the breast of an impassioned writer, and that lasted 15 years.

As for Pic In The Sky, with Richard Griffiths as the reluctant detective who wants to leave the police and run a restaurant but is being blackmailed into staying (a thin variation on the old "one last mission" routine) we shall have to see. So far the foodie content looks more convinc-ing than the police element, but the important question will be whether this is written from the character outwards, or is just another contrived formula: "Let's put him

he Opera's other young virtuoso is Emmannel Thibault. I reported on him last year. Slight in huild, he has a technique which dazzles by its easy elegance as hy its prowess. In the Napoli pas, and then in a fragment from Le Papillon, he showed a phenomenal facility – a circuit of the stage inter-spersing racing leaps with tight, clear pir-ouettes was astonishing. He is teacher's pet, seemiogly able to do with grace whatever he is asked, and unspolled and gentle deadness at the core, but not here: Phae-

let aspirants do as well?

in manner. He comes to life as he dances: curtain calls suggest a young man almost shy of applause. He was partnered in Le Papillon by

Veronique Doisnean, ideally matched with him in lightness, speed, and a sweet fragility, her dancing as effortless and beguiling as his. Very pretty, too, the sylphide sketched by Miteki Kndo, leading her James through the glens of Bournonville's second act, and turning and posing with delicious innocence. Grandly soaring was Sandrine Marache, who bounded proudly through a Virandière solo. My only complaint about the performance is the fact that Anton Dolin's version of the Pas de Quatre in which four divinities of London's ballct in 1845 were brought together in a contest of charm and steely temperament, was lightly guyed. The steps, like the Pugni score, are pretty, and need to be prettily danced. The mock rivalries, and the mopping and mowing between Saturday's participants. was all too roguey-poguey. Real-life ten-sions among ballerinas who have incarnated their great predecessors have been more subtly masked and far deadlier than this warfare of pink tulle and mones.

Clement Crisp

he great composers of the romantic era are fair game these days for conductors from the period-instrument movement. Twenty years ago Bach and Handel were still being played by symphony orcbestras; ten years ago people argued that "authentic" Haydn and Mozart would never catch on.

Each decade the authentic brigade moves on to its next hunting ground. Norrington and Gardiner have already tackled Berlioz and Brahms, both making a particularly good job of the latter's German Requiem. Now Nikolaus Harnoncourt, known in his earlier days for his Monteverdi operas and Bach cantatas, has caught up with them. The enormous success of his Beethoven symphony cycle made further progress into the 19th century inevitable.

There is one big difference with Harnoncourt. When he conducts classical or romantic music he prefers to work with conventional orchestras - although he does his level best to turn them into honurary period musicians. The admirable young players of the Chamber Orchestra of Europe look wholehearted converts: the double-bass players play standing up, the timpanist sits on a low chair and the vio-lins renounce their usual vibrato.

### Music in London/Richard Fairman

### Stars in their own right

lean strings and snarling hrass, ready to pounce at their conductor's next command. There is a high quota of aggression in Harnoncourt's conducting and it made itself felt from the beginning of Friday's Barhican concert with a trenchant performance of Beethoven's Coriolan Overture.

There was no soloist, which may account for a disappointing audience (though a noisily appreciative one). The central work was Schumann's Fourth Symphony, so different in style from Leppard's recent Schumann cycle that regular Barbican concert-goers might have wondered if they were listening to the same composer. Where Leppard was fluent and graceful, Harnoncourt dug into the music with zealous determination.

This is a conductor who always likes to spring a surprise. In Brahms's First Symphony he did not drive relentlessly along, as one might have expected, hut found

in Harnoncourt's hands they become a time for relaxation as well. If the music lithe, red-blooded orchestral animal, with still sounded stark, one suspects that for still sounded stark, one suspects that for Harnoncourt overturning a century's tradition of glowing romantic performances is half the delight. As he raced triumphantly through the final brass chorale, the adrenalin count hit danger level. Other Brahms conductors, beware

> ducation work in the community has become a prime responsibility of Britain's orchestras, but it costs money. On Monday the London Symphony Orchestra held a gala concert in aid of the LSO Endowment Fund to raise support for its education programme and invited Jessye Norman as the star attraction - a useful insurance policy if the ticket prices are going to be that high. A solo recital on the South Bank earlier this year proved that Jessye Norman can fill a hall alone at prices most orchestras

> in this country would long to charge for

large-scale symphony concerts. As that

as an artist to keep up the momentum. For this concert she was joined by Colin Davis, LSO Principal Conductor elect and a long-time colleague (they share a record company). They had put together a programme equally shared between two composers, tempting speculation that each of them would excel in one half: Britten for him, Strauss for her. Of course, it never works out that simply.

Britten's late cantata Phaedra was writ-

ten for a mezzo (Janet Baker) and has usually been sung hy mezzos, but it falls very comfortably for Jessye Norman's low-ish soprano. Alone of the singers I have heard in it, she experienced no strain at the top. The very fullness of the voice adds another side to the character. In some of her singing of late, the extrovert outward signs of involvement have concealed a

dra's inner torment and shame were fully alive, the beating heart of a rounded portrayal. There was no lack of heart in her Strauss, the closing scene from Capriccio. In fact, the sheer generosity of the volce

and the personality was too much of a good thing. There is a cool, elegant polse written into the music of Strauss's Countess, which is smothered if the vocal line bulges with heated emotion and verbal emphasis. True Strauss stylists like Janowitz take a more refined line. Nevertheless, Jessye Norman was in lustrous voice. The star appeal still shines brightly. in between came two orchestral items

which were definitely not fillers. It is a luxury to hear the Four Sea Interiudes from Britten's Peter Grimes played by a top orchestra and the LSO showed what a difference it makes. The partnership with Davis is promising a splendid future, his mature wisdom and their panache combining in a fine performance of Strauss's Don Juan. If the LSO continues to play as well as this, it can be the star in its own gala concert next time.

LSO concert sponsored by American Air-lines; it is repeated on March 17

■ OSLO

Konserthus Tonight, Fri: Nello Santi

Orchestra and Chorus in a concert

Pick-Hieronimi and Bonaldo Giaotti.

Academy of St Martin in the Fields

Penderecki and Haydn (2283 3200)

Konserthuset Tomorrow: Roland

Barbara Hendricks song recital. Next

Wed, Thurs: Academy of St Martin

Royal Opera Sat: song recital by

Helena Doese, accompanied by

Geoffrey Parsona. Repertory

includes La boheme, Suppe'e

Makarova's production of La

operetta Boccaccio and Natalia

Pontinnen piano recital. Tues:

performanca of Bellini's Norma,

Tomorrow: Iona Brown directs

conducts Oslo Philharmonic

with cast including Monica

in works by Britten, Mozart,

**■ STOCKHOLM** 

in the Fields (08-102110)

# INTERNATIONAL

#### **■ COLOGNE**

Philharmonie Tonight: Wolfgang Sawallisch conducts Vienna Symphony Orchestra in Beethovan's Second Symphony and Bruckner's Seventh, Sun afternoon: Borodin Quartet, Sun evening: Andras Schiff plano recital. Mon: Nina Corti flamenco evening. Tues: Eartha Kitt. Next Wed: Altred Brendel. Next Thurs: Dmitri Hvorostovsky, James Galway and others (0221-2801) Operations This month's repertory includes Rigolatto with Alexandru Agacha and Leontina Vaduva, Harry Kupfer's production of Shostakovich's The Nose and Jochen Ulrich's choreography of Peer Gynt. Helen Donath gives a song recital next Wed, and Ben Heppner aings the title role in a nsw

#### ■ COPENHAGEN

on March 27 (0221-221 8400)

Royal Theatre The main event this week is the first night tomorrow of a new production of Fidsho. conducted by Paavo Berglund and

production of Peter Grimes opening

staged by Dieter Kaegl. Casts includs Poul Elming, Tina Kiberg and Leif Roar. Repertory also includes Otello, Carmen, Helgi Tomasson'a production of Sleeping Beauty and new ballets by Anna Laekesen and Laura Dean (tel 3314 1002 fax 3312 3692)

#### DRESDEN

Semperoper Tonight, Sat: La traviata. Tomorrow: Harry Kupfer's new production of Handel's Belshazzar, with Iris Vermillion and Jochen Kowalski. Fri: Salome. Sun: Der fliegende Holländer with Ekkehard Wlashicha and Reiner Goldberg, Mon, Tues: Zuhin Mehta conducts Dresden Staatskapelle in Mendelssohn's Octet and Mahler's First Symphony (0351-484 2323)

Kulturoalast Sat: Wolfgang Sawallisch conducts Vienna Symphony Orchestra in Beethoven'a Second Symphony and Bruckner's Seventh. Sun (Schloss Albrechtsberg): members of Dresden Philharmonic play chamber music by Sutermeister, Mahler, Haydn, Busoni and others (0351-486 6666)

#### **FRANKFURT**

Alte Oper Tonight: I Musici di Roma play baroqua concertos. Sat: Mikis Theodorakis presents an evening of his own music. Sun morning, Mon evening: Emmanuel Krivine conducts Frankfurt Opera Orchestra in works by Blacher, Prokofiev and Franck, with violin soloist Midori, Mon (Mozart Saal): Nathalie Stutzmann song recital. Tues: Dirk

Joeres conducts West German Sinfonia in Saint-Saens, Mozart and Brahms, with clarinet soloist Eduard Brunner. Next Wed: Lorin Maazel conducts Bavarian Radio Symphony Orchestra (069-134 0400) Oper Tonight, Fri, Sun: Sylvain Cambreling conducts Herbert Wernicke'a new production of Duke Bluebeard's Castle, with Henk Smit and Katherine Clesinski. Tues: Ensemble Modern plays works by Webern (069-236061)

#### ■ GOTHENBURG

Konserthuset Tonight: Iona Brown directs Academy of St Martin in the Fields. Fri evening, Sat afternoon: Jun'ichi Hirokami conducts Gothenburg Symphony Orchestra in works by Verdi. Sandström and Delibes, with trombone soloist Christian Lindberg (031-167000)

#### ■ HAMBURG

Staatsoper This month'a repertory Includes a Ring cycle conducted by Gerd Albrecht, with Gabriela Schnaut, Simon Estes and Siegfried Jerusalem in leading roles, and a new production of Henzs's Dis Bassarlden, staged by Christine Mielitz and conducted by Markus Stenz. Dmitri Hvorostovsky gives a song recital next Mon (040-351721) Musikhalle Tomorrow: Wolfgang

Sawallisch conducts Vienna

Beethoven piano sonatas, Mon:

Symphony Orchestra in Beethoven's Second Symphony and Bruckner's Seventh. Fri: Alfred Brendel plays

B.B. King. Next Thurs: Andras Schiff (040-354414) Susan Marshall, March 24: Kent

#### HELSINKI

Finnish National Opera Tonight, Sat, Tues: Otello. Tomorrow, Fri: new Stravinsky ballet programme, Including world premiere of Jorma Uotinen's Petrushka. Sun afternoon: Academy of St Martin in the Fields (0-403ü 2211)

#### ■ LEIPZIG

Gewandhaus Tonight: Udo Zimmermann conducts MDR Chamber Philharmonic in official opening concert of 1994 Leipzig Book Fair. Tornorrow, Fri: Marek Janowski conducts Gewandhaus Orchestra and Chorus in works by Schnittke, Mozart and Beethoven. with plane soleist Lars Vogt. Sun evening: Gewandhaus Quartet plays string quartets by Haydn, Mendelssohn and Beethoven. Mon: Thomas Zehetmair is violin soloist with Amsterdam Bach Soloists

(0341-713 2280) Opernhaus Fri: Lothar Zagrosek conducts revival of Ruth Berghaus' production of Jörg Herchet's 1993 opera Nachtwache. Sat: two ballats by Uwe Scholz. Sun: Fidelio. Next Tues: Scholz's version of Coppelia (0341-291036)

#### LYON

Opéra Tonight, Fri, Sun: Neville Marriner conducts concert performances of Mozart'a II re pastore. Next Tues: first of eight performances of ballet mixed bill featuring choreographies by BIII T. Jones, Stephen Petronio and

Nagano conducts Debussy and Ravel. March 30-April 3: Pina Bausch Tanztheater Wuppertal (tel 7200 4545 fax 7200 4546) Auditorium Tomorrow, Sat: Peter Csaba conducts Orchestre National ds Lyon in works by Schumann and Liszt (7860 3713)

#### ■ MARSEILLE

Opéra Tonight, Fri, Sun aftamoon, next Wed: John Burdekin conducts Alain Marcel's new production of Lalo's Ls Roi d'Ys, with cast including Nadine Denize, Alain Fondary and Luca Lombardo (9155 0070)

#### MUNICH

Staatsoper The main event over the coming week is the premiere on Mon of Richard Jones' new production of Giulio Cesare, conducted by ivor Bolton, with a cast headed by Ann Murray, Kathleen Kuhlmann, Trudeliese Schmidt, Pamela Cobum and Christopher Robson, Repertory also includes Lady Macbeth of Mtsensk, Der fliegenda Hollander and Peter Wright's production of Giselle. There are performances of Die Meistersinger von Nümberg on March 25, 28 and April 4 (089-221316)

Gasteig Tonight: an evening with

Maazel conducts Bavarian Radio

Symphony Orchestra in works by

opera concert with Munich Radio

Orchestra and vocal soloists. Mon:

Philharmonic in Haydn, Schumann

Franz Welser-Möst conducts London

Berlioz, Weber and Bartok. Sun:

Peter Ustinov. Tomorrow, Fri: Lorin

**■ STUTTGART** Staatstheater Tomorrow, Sun, next Thurs: Philippe Auguin conducts

Bayadère (08-248240)

revival of Götz Friedrich's production of Der Rosenkavalier, with Ellen Shade and Helmut Berger-Tuna. Fri: Marcia Haydée'a version of Giazunov's ballet Raymonda. Sat, next Wed: Achim Freyer'a production of Der Freischütz. Tues: Johannes Schaafe production of Rigoletto, with Wolfgang Schöne in title role (0711-221795)

and Shostakovich, with piano soloist Mitsuko Uchida (089-4809 8614)

ARTS GUIDE Monday: Berlin, New York and Tueaday: Austria, Belgium. Netherlands, Switzerland, Chi-cago, Washington, Wednesdey: France, Germany, Scandinavia. Thursday: Italy, Spain, Athens, London, Prague. Friday: Exhibitions Guide.

European Cable and Satellite Business TV (Central European Time) MONDAY TO FRIDAY NBC/Super Channel: FT Business Today 1330; FT Business Tonight 1730, 2230

NBC/Super Channel: FT Reports 1230.

TUESDAY Euronews: FT Reports 0745, 1315, 1545, 1815, 2345

WEDNESDAY NBC/Super Channel: FT Reports 1230

FRIDAY

NBC/Super Chennel: FT Reports 1230 Sky News: FT Reports 0230, 2030

SUNDAY NBC/Super Channel: FT Reports 2230 Sky News: FT Reports 0430, 1730;

### Ian Davidson

It is hard to make strategic sense of the British government's campaign restrict majority voting in Europe. Yes, I

of the anti-Europeans in their party; and presumably they hope to appease them with a vigorous stand in defence of national sovereignty. But the problem is that this is a crusade which is certain to fail in the medium term, and probably in the short term as well. In any case, why go out on a

limb now? The Maastricht treaty was such a miserable experience for Mr Joho Major that you would thick the prime minister would do his best to steer clear of all questions of principle about Europe and its development for as long as possible. Yet here be is, taking a combative stand on an issue which is bound to involve a battle on two fronts: it must lead to an unwinnable confrontation with his partners in Europe, but it must also stir up the anti-European campaigners among those who are nominally his own supporters. This is a spectacular exercise in political masochism.

This crusade is doomed to defeat, because its underlying objectives set the UK at odds with virtually all its European partners. The government pretends that it is only asking that the voting rules which protect blocking minorities in the Council of Ministers should be kept at the present level. even after the admission of four more member states; 23 votes, or the equivalent of two big countries and one small.

The reality, of course, is that the British government is trying to make majority voting more difficult than at present; wbereas effective decisioomaking in a larger Union will obviously require more majorlty voting, not less.

The puzzle is that the Conservative government seems to have been manoeuvred by its Euro-phobic wing into refight ing the last war but one. The windmill it is tilting at is the old fantasy that Britain's national sovereignty is threatened by the sinister federalists in Brussels; and It appears to imagine that it can creep by stealth back in the direction of a national veto, it does not seem to realise that the terms of the debate bave been

**Futile** and flawed

The UK cannot impose its vision of Europe on its EU partners

changed beyond recognition. Many years ago, in 1965-66, ne Community had a shattering confrontation between France and the rest, over the rights and wrongs of majority voting. That was before major ity voting was due to come into force as part of the Communi ty's normal regime, and the French were trying to prevent it happeoing. After a six-month confrootation, a truce was signed in 1966 which was afterwards called the Luxembourg Compromise, even though there had been no compromise on anything. Nevertheless, the psychological shock of the cri-

It is perhaps slowly dawning that the opt-out is not a satisfactory type of solution

sis effectively deterred major ity voting for 20 years.

But the Luxembourg Com promise was wiped off the slate by the 1986 Single European Act, which explicitly broadened the scope for majority voting; and the agenda on the slate was rewritten by the Maastricht treaty, which also carried the majority voting rend even further.

As a result, today's central question about majority voting is the reverse of yesterday's: It is not whether a member state can be compelled by majority vote to do things it would rather not do, but whether it can use its national veto to prevent most or all of its partners from doing what they collectively want to do.

It is now clear that the first, old-fasbloned question can bave several different answers. Most rational people now recognise that the purpose of majority voting is not to outvote the recalcitrant, but to persuade them to negotiate and to compromise. But for those who will not negotiate and will not submit, there is the alternative of the opt-out: if you don't like the journey, you can leave the ship.

That was the double lesson of Maastricht: the other member states could not compel the UK to accept the social chapter or the Danes to accept monetary union or indeed anything else in the treaty; but nor, in the last resort, could Britain and Denmark prevent the others from going ahead with the treaty they had com-promised on. In the long run, the majority will get the kind of Europe they want, and the options for those who disagree will essentially be quite simple: to compromise, to submit, or to stand aside. If majority deci-sions are blocked inside ths Council of Ministers, through systematic legal obstruction,

some other way. If the British government is now trying to strengthen the legal methods of obstruction, it is perhaps because it is slowly dawning that the opt-out is not a satisfactory type of solution.

they will be taken outside, in

The plan for economic and monetary union may well prove an acute test case, and it s likely to come to a head during the 1996 Inter-Governmental Conference to review and revise the Maastricht treaty. At that moment, it will be clear which member states are still committed to monetary union. And it is quite possible that an inner core will be ready to go ahead to a single currency, conceivably in a very near future. Mr Major will then be left bolding his opt-out, which means he cannot stop them, just as it means be cannot join them.

Note that the concept "blocking minority" does not exist in any European treaties, What they lay down is the oumber of positive votes required to pass a measure; at present 54 out of 76. The underlying assumption is that the governments which signed the treatles share a broad political consensus on the purpose of their association. That consensus did not exist in 1965. But the French lost that battle for one simple reason: they could not impose their view of Europe then, and It is time the British saw that they cannot impose their view of Europe now.

I have a conventional exterior

and a RADICAL interior.

f employees of Foseco, the Birmingham-based metallurgical company, try to book business class tickets when they should be flying economy, Wagonlit Travel will let Mr John Lamb know.

Mr Lamb, Fossco's chisf accountant, says the company's contract with Wagonlit ives it far greater control over business travel costs than it could ever achieve alone.

Wagonlit's technology enables Mr Lamb to obtain, at 24 hours' notice, n computerised record of where employees have travelled recently and whether they got the best deal svailable. If they have not, he asks them why.

Wagonlit, which is part of Accor, the French botel and catsring group, yesterday announced details of its plan to combine its business travel Interests with those of Carlson of the US to create a worldwide network with combined revenues of \$10.8bn, operating from 4,000 locations in 125 countries. Two main competitors, American Express and Thomas Cook, each operate from about 2,000 locations - either their own offices or those of client

companies. The two sides in the partnership said the new company. Carison Wagonlit Travel. "service the growing needs of the global business traveller, to market the new brand worldwide, develop new giobal business travel technology and pursue immediate expansion into new business markets throughout the world. in particular the Asian and ific regions".

Mr Curt Carlson, the founder of the Carlson empire, says the combined travel company will be able to improve services to clients such as General Electric, which places its \$350m-a-year travel business with Carlson in Phoenix, Arizona, Mr Carlson, whose compa-

ny's other interests include Radisson Hotels and TCI Friday's restaurents, which are not part of the merged venture. says: "Big companies often bave difficulty with their travel, operating in new countries where agencies often just speak the local language and airlines use different (ticket) codes."

Carlson will contribute its strengths in the US to Wagonlit's strong position in Europe. The newly-merged company will invest an initial \$40m in setting up or buying agencies In Asia, the Pacific region. Latin America and Africa, where it is under-represented. Why did they choose each other? Mr Hervé Gourio, presi-

Is bigger better in the global business travel industry, ask Michael Skapinker and David Buchan

# Essential, or just extra baggage

dent of Wagonlit Travel, says: Carlson is the best partner for us because we are about the same size in the travel business and at the group level. Neither is predominant, European or American."

Mr Travis Tanner, president of Carlson Travel, promises "a real working union to create the number one in business travel. Not a paper partnership, nor a smoke and mirrors arrangement." He said Carison "needed a prominent position in Europe - to have done it ourselves would have taken a great deal of time and money".

Rivals in the industry, however, were quick to cast doubt on the prospects of merging two organisations with such different cultures. "This is not a marriage made in heaven," said one rival business travel executive. "I can't see the Americans being run by the French, or vice-versa.

The new company will have two chairmen, one from Carlson and one from Wagonlit, and two chief executives, also one from each side. Although the company headquarters will be in London, the two sides said "daily operations will be co-ordinated from Minneapolis and Paris respectively".

Carlson, one of the largest privately-owned groups in the US, is seen in the travel industry as run with a firm hand from its Minneapolis headquarters. Wagonlit, which has gone through a series of changes and acquisitions, is regarded as still formulating its culture.

Accor acquired Wagonlit. which had taken over the UK business travel interests of Pickfords, in 1992. The company was then called Wagons-Lits, but changed its name to Wagonlit last year to distinguish itself from Accor's railway services division, which still uses the old name.

The planned new company brings together some of the oldest names in the travel business. Carlson's travel business began as the Ask Mr Foster travel agency in St Augustine, Florida, in 1888, making It the oldest travel agency in the US. Its name came from a total res-



ident. Mr Foster, who was the unofficial keeper of train timetables. Carlson acquired Ask Mr Foster in 1979, Wagonlit was founded in

1872 to provide sleeping cars for overnight travellers on European trains. In 1928 it set np travel agencies in rail ticket offices throughout Europe. For over 60 years, Wagonlit had an alliance with Thomas Cook. The thinking behind the tie was that Thomas Cook's strength in the old British Empire would complement

Wagonlit's power in continen-tal Europe. The link was dissolved in 1989. In a pointed statement yesterday, Mr Christopher Rodrigues, Thomas Cook's chief executive, said: "Since we

decided to sever our relation-

ship with Wagonlit, we have

From Mr Alan Beith MP. Sir, Alison Smith's report,

some building society execu-

tives to any form of account-

ability to their members,

whose capital they manage.

When f raised this issue of

the Building Societies Associa-

tion s few months ago, I

received an intriguing mixture

of public criticism and private

support. The leading article in

been building the Thomas Cook network by working with like-minded partners who put customer service first. Forming alliances is only the beginning of the relationship and major industry players such as our selves will be watching the progress of this alliance with interest. However, it will be customers who will judge its real value

Not all Wagonlit's customers e merit in the merger or in the idea that companies need a single business to handle their travel requirements worldwide.

Mr Lamb says Foseco does not even have the same travel agents as Burmah Castrol, its parent company, which uses Thomas Cook, Foseco was already using Wagonlit when it was acquired by Burmah Castrol in 1990. Although the com-

pany asks different agencies to bid for its travel account every two or three years, it has seen no need to abandon Wagonlit, which has two staff members

based at Foseco's premises.

Mr Lamb says that Foseco and Burmah Castrol did decide jointly to seek discounts from airlines as their larger combined purchasing power enabled them to get a better deal. They have investigated using a single travel agency throughout the group, but decided there were no similar savings to be made. The larger combined purchasing power would not have yielded bigger

Lamb believes there are advantages to having two travel agencies working for different parts of his group. He says: "We believe it keeps both of them

Mr Lamb is sceptical of the claim that combining Wagonlit with Carlson will enable the combined group to deliver a more competitive service. He says: "My answer to that is: if getting much bigger means you can purchass so much more efficiently, kindly tell us how much that's going to bene-

fit us in discounts."
The proposed merger does have its champions, however. Mr Andrew Solum, travel manager of Inmarsat, the international satellite organisation. which is also a Wagonlit customer, says it should bring significant benefits.

After taking on Wagonlit last year to handle travel arrangements from its London beadquarters, Mr Solum was sufficiently impressed to ask them to do the same for inmarsat's offices in Princeton, New Jersey. Six weeks ago, the organisation opened an office in Beijing, where Wagonlit is not represented. Mr Solum bones the planned merger will enable Carlson Wagonlit Travel to open an office there.

He says the idea of a global travel agency network is more than mere hype. If his organisation's employees are bumped off flights in different parts of the world, he says a call from Wagonlit to the airline often gets them back on the aircraft, The wider a travel agency net-work's reach, the more places there are where it can perform such services.

He says: "Wherever you are in the world, if you've got a Wagonlit ticket, you can go into a local office if you've got a problem. You've got some where to go if you've been robbed."

### LETTERS TO THE EDITOR

Number One Southwark Bridge, London SEI 9HL Fax 071 873 5938. Letters transmitted should be clearly typed and not hand written. Please set fax for finest resolution

#### Appearance | Heading down unhealthy path is not everything

From Mr Derek C Jenkins. Sir, Colin Amery ("A lifeline for the South Bank", March 14) falls into the trap which catches so many of those who write about architecture - he assumes that external sppearance is everything. In praising the Festival Hall, while damning the Queen Elizabeth Hall and Hayward Gallery, be takes no account of the ability of each building to fulfil its true

function successfully. In the ways in which a concert hall can enhance a musi-cal performance and its enjoyment, by the musiclans and audience, the RFH is the worst venue, not just in London, but in all the main centres in Europe. The QEH, on the other hand, ranks with the Wigmore as the best in this respect

Amoog galleries, the Havward exhibition space complements 20th century works in a way that is matched by no other leading London site. To suggest that buildings do not fulfil their real purpose est that buildings do not superbly, merely because a vocal section of opinion deems them to be ugly on the outside, is a very poor application of values and priorities. Derek C Jenkins. 41 Spice Court, Asher Way, London El 9JD

From Josephine Farrington. Philip Stephens' article, "PM

prims minister to drop the unpopular proposals for chang-ing Welsb local government.

Only one in five in the prin-cipality supports the government's plans to establish 21 so-called unitary authorities at a cost of £201m. If the people of Wales, members of the Confederation of British Industry, Trades Union Congress, volunMortgage Finance Cazette asserted in reply that society boards and the Building Societies Commission should take burden of notifying them by post of their voting rights at the annual general meeting. active steps to prevent the elec-

"Building societies aim to shake off shackles" (March 10), underlines the hostility of tion as directors of people not chosen by the current directors, and questioned "whether mutuality meant anything more than not being required accountability in a speech to to pay shareholders divi-

> The government even suggests that building societies, which constantly mail advertising material to their mem

burden of notifying them by post of their voting rights at the annual general meeting. Some people in the industry do recognise that a complete absence of accountability, even if regulation became more effective, would be extremely unhealthy. However, that is the way things are beading. Alan Beith,

Liberal Democrat deputy leader and Treasury spokesman, House of Commons, London SWIA QAA

#### Why Wales resists change

Sir, I read with interest urged to shelve radical plans" (March 14), on growing pressure for the government to delay implementing local goverument reorganisation in England until after the next general election. I hope the same "consolidators" to whom he refers will also press the

tary organisations and the overwhelming majority of Welsh MPs oppose this proposal, how can English MPs justify forcing it on them? They could not have sent a clearer message to Whitehall. For a government that claims to want to listen to the people, it is certainly keen to ignore the wishes of the Welsb. They have not been given an independent commission to examine council structure.

We can only hope the same ministers now making such pragmatic noises about reforming English local government will speak up for Wales. Josephine Farrington, Eaton House, London SWIW 9RA

### Time for minister to speed up the search

From Mr J M L Stone Sir, Mr John Gummer, the environment secretary, has called for councils to handle standard enquirles "within 10 working days" ("Quicker land searches urged", March 12). In the last years of the 20th century this is an absurd call. Mr Gummer should seek to veyancing could, if the will

ensure, as a matter of urgency. that the whole of the conveyancing process should become a real-time screen-to-screen software and the technical know-how to effect this are all immediately available to his department. At a stroke, conwere there, become a fast, efficient and cheap process which would benefit 99 per cent of the nation at the expense of 1 per cent (the lawyers). J M L Stone,

chairman. Property Intelligence, 13-15 John Adam Street,

#### Not a recent change in English company law

From Mr E A Coleman. Sir, Mr Jean Thibaud's article on recent developments in French banking and company law was most informative (Business and the Law: "Overthrow of ancien regime", March 8).

Allow me, bowever, to correct what appears to hs an inaccuracy in the article. Mr Thibaud states, in the fourth

paragraph, that "England has | ence to a "recent" acceptance recently accepted netting [is. set-off] as a basic principle of insolvency law... In point of fact, bankruptcy/insolvency set-off has been the rule in England since the time of Queen Anne (see s.11 of 4&5 Anne c.17), if not before (see s.2 of the 1570 statute, 13 Elizabeth, c.7).

Perhaps Mr Thibaud's refer-

of netting in England was a reference to the (somewhat belated) recognition by the financial law panel of the principle of insolvency set-off (see the panel's guidance note on netting of November 19 1993). E A Coleman, 43 Trinity Court. Gray's Inn Rd. London WC1X &JZ

#### Scottish salmon competitive

From Mr Jim Payne, Sir, In the letter "Scottish salmon also subsidised\* (March 14), Mr Roderick Thomas wildly exaggerates the level of support which has been received by the Scottish salmon farming industry. Moreover, in every case, any support for the industry has been completely in accordance with European Union rules. Contrary to what he states, Norway has no natural advan-tages over Scotland for grow-ing salmon. This is why the is now as good, or possibly better, than those in Norway. There is no truth in the statement that Norwegian salmon farms are profitable at

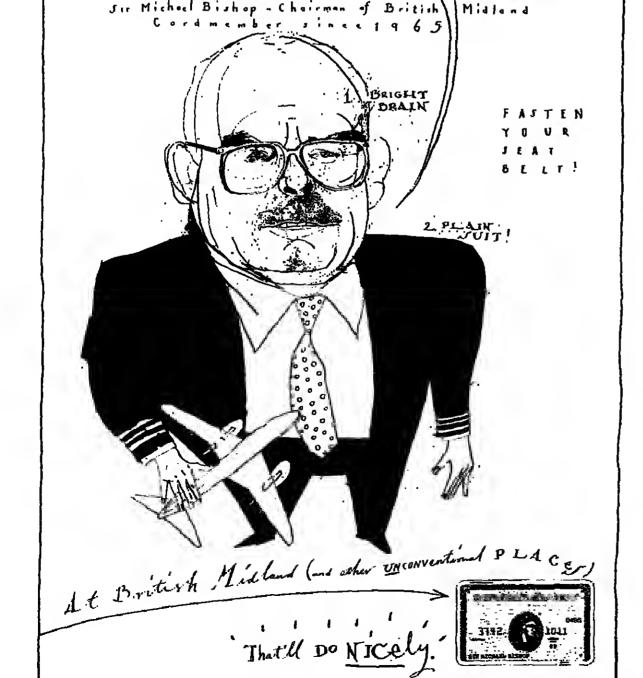
a price of 20 per cent to 30 per cent lower than the cost of production in Scotland. The most careful analysis reveals that costs of production are roughly comparable in both Mr Thomas is also wrong

about the threat from Chile. Chile can compete only in Europe on frozen salmon. The freight cost for fresh salmon from Chile to Europe makes that business uneconomic. Otherwise, of course, there would be fresh salmon arriving in Europe now, at a time when the Chileans are vigorously searching for new mar-

Jim Payne, chairman, Scottish Salmon Growers Asso Drummond House Scott Street

Perth PH1 SE1

kets.



### FINANCIAL TIMES

Number One Southwark Bridge, London SEI 9HL Tel: 071-873 3000 Telex: 922186 Fax: 071-407 5700 Wednesday March 16 1994

## Summit for good jobs

The jobs summit in Detroit was never likely to come up with exciting new solutions. What it could do was register agreement on the importance of the topic and indicate the nature of the emerging consensus on what to do about it. This the summit has done. In breaking new ground for the discussions among the group of seven industrial countries, it may even have given that Intellectually moribund body new life.

15:

Not that the GT's familiar macroeconomic disbarmony was entirely absent. One of the recurring leitmotifs of its two decades has been the US effort to persuade the Germans to adopt more expansionary policies. The jobs summit was partly an imaginative new way to achieve that old objective. The pitch adopted by US labour secretary, Robert Reich, was that cyclical unemployment which persists may turn into structural or classical types of unemployment, which are more difficult to address". The argument is correct, but it cuts two ways. Rising infla-tion must also be avoided, because it leads to recession as surely as night follows day. It is not clear that the Clinton administration

understands this point. If a transatlantic consensus on macroeconomic policy is lacking. the agreement elsewhere was encouraging. The summit has, for example, rejected protection against imports and embraced innovation, rightly so, in both cases. Labour intensive imports and new technology will make industrial countries richer. But, as Mr Reich observes, they also exact a price. "The primary structural labour market problem," he notes. "is a shift in relative labour demand against less-educated workers and those doing routine tasks and towards workers with problem solving skills."

#### Increased inequality

in the US, the result has been increased inequality, with workers in the higher earnings bracket enjoying a 4.4 per cent increase in real wages over the past 20 years, while those on the bottom suffered grew by some 40 per cent. in continental Europe, by contrast, average real wages grew rapidly over the past two decades – by 76 per the path they are apparently seeking.

cent in France and 43 per cent in Germany. There was also very little increase in pay inequality. But these countries enjoyed virtually no employment growth, while unemployment rose, cycle hy

The question then is not whether jobs can be created. It is obvious that they can be. The question is whether those new jobs can be combined with sus-tained rises in average real wages and the pay equality to which Europeans, in particular, are attached. The challenge is not just more jobs; it is "good jobs" for

#### Holy grail

Secretary Reich's own suggested solution is the trio of European-style education and training. USstyle labour market flexibility and expansionary macroeconomic policy. So is this the boly grail for jobs? Only up to a point, Mr Reich. Yes, education and training

matter, but high-quality basic education matters most, a policy that may never work for all and certainly will not act quickly. Yes, labour market flexibility is essential, but this is a euphemism for policies that will lower the relative and quite possibly the abso-lute real wage of the unskilled, precisely what Europeans – and increasingly Americans - find objectionable. And yes, macroeconomic policy must accommodate growth, but even Padraig Flynn, European commissioner for employment, agrees that "there la a new conventional wisdom that cyclical recovery will not be the way out"

There is room for a great deal of imaginative new thinking of the kind contained in a new pamphlet from the London-based think-tank Demos on "the end of unemployment". But at the heart of that thinking must be ways to lower the cost of hiring new employees If at the same time rewards are to be sustained, large employment subsidies for the unskilled will be required, instead of the taxes often imposed upon them. But that would necessitate higher a 10.3 per cent real decline.

Because there was no overall real wage growth, US employment also labour market deregulation, this is the only policy likely to

### Better fewer but better

There is growing concern at Westminster over the way that legislation is drafted and passed. On Monday, Mr Howard Davies, director general of the Confederation of British Industry, added the voice of the husiness community to such worries. in a speech at the European Policy Forum, he called for an overhaul of the legislative process, with more consultation, better drafting and improved scru-

The case for reform is strong. The weight of legislation is growing - this year's Finance Bill, at 471 pages, is the longest in history. Yet an increasing amount of time is spent on remedying the defects of recent legislation. Last year's Criminal Justice Act repealed sentencing reforms intro-duced in the 1991 Act. A oneclause hill is needed to restore the powers of transport police, inadvertently watered down in last

year's rail privatisation act.

A telling indicator of the need for change is the growing number of amendments the government has to table to its own legislation in the Lords. These bave more than doubled during the 1980s according to evidence submitted by Lord Howe to the Hansard Society commission on the legislative process which reported last year. The late drafting and tabling of amendments inevitably makes parliamentary scrutiny less thorough. It also makes it harder for business and other organisations to make an informed contribution towards shaping legislation.

#### Drafting quality

Some of the hlame for this has been laid at the door of the parliamentary counsel who draft legislation. The European Policy Forum has recently suggested breaking their monopoly to improve the quality of drafting. Involving outside lawyers in the work would illow departments access to a larger pool of talent. Contractingout would also force departments to define their objectives clearly und devise reasonable timetables hat legal firms could work to. However, it is not bad drafting which has led to repeated amendnents to the Police and Magisrates Courts Bill currently pass-

ng through the Lords, it is the

tilure of the home secretary Mr

lichael Howard to convince peers

of the wisdom of centralising control over the police service. Mr John Patten, education secretary, has also had to concede amendments to his Education Bill to address scepticism over his proposals to curb student unions and to allow schools to control teacher training. Better drafting could improve the quality of legislation - but ministers have much more to contribute.

Ministerial machismo

Too much legislation is rushed through parliament too hastily. In some cases, this is to deal with political crises such as a surge in joy-riding or a spate of attacks by dangerous dogs. But in most cases, it is ministerial machismo which sees pushing through radical reforms as the best way to climb the greasy pole. Frequent ministerial reshufiles encourage this belief, since ministers move on before the trouble they have created manifests itself.

A more serious approach to consultation on contentious changes in the law would belp counter such tendencies. Mr Davies says that some departments consult business in "an unsatisfactory or perfunctory way". He cites the Home Office failure to consult on fire safety regulations, scrapped only after direct intervention by the CBI. And just three weeks was initially given for comments on complex proposals to reform pen-sions law issued in January. Ministers should give adequate time for consultation and report more fully on the outcome.

Another useful step would be to limit the number of contentious pieces of legislation passed in each session. This would allow more time for legislative "housekeeping", such as legal reforms drafted by the Law Commission. Uncontroversial measures needed by husiness such as amendments to the Sale of Goods Act, legislation on the Privity of Contract and a new Restrictive Practices Bill have all been ready for years but denied parliamentary time.

There are other measures that could improve the legislative process, such as creating two finance bills to separate technical tax changes from more radical policy changes. But the key to better legislation is have less of it, and do it

#### nternational Computers, the UK-based computer company, used to epitomise arrogance and insularity. Even "International" in the company's name begged an invidious comparison with International Business Machines, the world's largest comnuter company.

Stories of its conceit abounded. The chief salesman for a region, it was said, would rut up in the best hotel and announce he would be available that evening in the parlour to take customers' orders for

Since its acquisition, first by the UK telecommunications company STC in 1984 and then hy Fujitsu, Japan's leading computer maker, in 1990, that arrogance has evaporated. "Today we are humbler and nimbler," says Mr Peter Bonfield, ICL chairman and chief executive.

Mr Koshiro "Kit" Kitazato, Pulitsu'a man in ICL's headquarters in Putney, west London, is charged with co-ordination between the Japanese computer giant and its UK-based subsidiary. He says ICL has learnt reliability from Fujitsu, while Pujitsu has learnt flexibility from

Fujitsu set several strategic objectives at the time of the takeover. ICL would be autonomous, operating at arm's length from its parent. would retain its European base, seek maximum commercial co-operation with Fujitsu and, eventually, float on the London Stock

The first few conditions have been fulfilled; the recession has delayed the flotation. Both compames agree they should work more closely together to share research and development, and marketing

There have been some positive developments: ICL's new mid-range computers are the first to be sold under the two companies' names; a ploneering trainee exchange scheme under way; the two groups are collaborating on check-out systems for supermarkets; ICL's office software has been rewritten to be marketed in Japan.

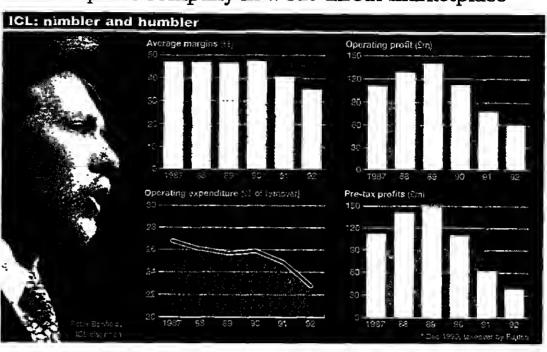
· Despite these achievements, ICL's 1993 results, scheduled for release today, will not be exciting. Turnover will be higher than last year's £2.5bn, but pre-tax profits are expec-ted to be well helow the £38.6m recorded for 1992. Profitability has been on the slide since 1989, when ICL made £148.6m before tax. The 1993 figure represents little more than break-even, though it is respectable in an industry undergoing global restructuring.

ICL's top management is taking

steps to safeguard the group's profitability. Earlier this year, the company raised £100m through a rights ue wholly taken up hy Fujitsu the first time the UK company had turned to its parent for funds.

# More flexible, and less arrogant friend

Alan Cane examines the outlook for a UK-based computer company in a cut-throat marketplace



The issue reflects the group's pessimism over short-term prospects in the computer marketplace, as the industry moves towards low-cost, low-margin operating systems based on common standards

Cash is one hulwark against a highly competitive market; an increasingly efficient and lean operation is another. Mr Bonfield points to the steady decline in the group's overbeads. In 1987 operating expenses as a percentage of turn-over were 26.8 per cent, in 1992 the figure was 22.8 per cent and it is expected to have fallen further in 1993. The company employs about 25,000 and is cutting jobs at about 5 per cent a year.

The reason for ICL's drive for economies is the relentless decline in gross profit margin. Standing at 47 per cent in 1987, it is now less than 35 per cent as the shift to lower-cost systems continues. Nevertheless, ICL remains the only consistently profitable broad-

based computer manufacturer headquartered in Europe; worldwide, it is one of the few traditional computer companies not floundering in red ink. By comparison, Siemens

Nixdorf of Germany and Olivetti of Italy are losing money; and Groupe Bull of France is dependent on repeated restructuring grants from

the French government.

Mr Bonfield's reputation is high, both with Fujitsu and the industry st large. He was recently asked by Mr Martin Bangemann, European Union commissioner for industry and telecommunications, to join the High Level Group on Information Technology, set up to consider the impact of information technology on Europe. This is an indication that ICL has restored its Euro credentials after being hundled out of high-level European policy meetings following the Puitsu takeover.

But restoring adequate profitabillty has proved more difficult. Though it still manufactures mainframe computers, more than 50 per cent of ICL's revenues come from the services sector. Competitors now include services companies, such as Electronic Data Systems (EDS), and personal computer makers, such as Compaq, as well as its traditional rivals, IBM, Unisys and Digital Equipment. According to Input, a US consul-

services husiness, ICL's improvement in market share in services ranks it fourth in Europe behind the US companies Microsoft, Andersen Consulting and EDS. The company has been split into

tancy which tracks the computing

26 semi-autonomous businesses. each with profit and loss responsibilities. There are three groups: industry systems, including countries such as France and Portugal, under Mr Richard Livesey-

Haworth: · services, including Workplace Technologies and Sorhus Europe, the maintenance company ICL owns with Bell Atlantic, under Mr Paul Whitwam:

 and technology businesses, exemplified by Design to Distribution, ICL's manufacturing consultancy, under Mr Ninian Badie.

These changes, made over the past year, are evidence that the company is going through a second significant restructuring. The first took place more than a decade ago when, under Mr Robb Wilmot, ICL forged a technological alliance with Fujitsu and pioneered the shift to standard systems. That was when

ICL abandoned cherished notions of setting the technological agenda and accepted that it would have to buy its technology from the best sources. Despite what many saw as the dead hand of STC, ICL prospered during the buoyant economy

Both ICL and STC were aware. however, that the company needed an owner with deeper pockets and greater commitment to the information technology business than STC. The solution proved to be Fujitsu. It bought the company just before the US and western Europe moved into recession. At the same time, the cost of computer hardware fell precipitously, helped by a fierce price war between personal computer manufacturers.

ICL's survival is a consequence of

a flexibility uncommon in large companies: "in storms we are quite quick up the rigging, even if the planks are leaking," Mr Livesey-Haworth says wryly.

Mucb of this flexibility comes from a trio of acquisitions: Data-cbecker, a US retail automation mpany which is the cornersione of ICL's amhitions as a global retail systems company; Nokia Dala, the Finnish personal computer company, which ICL hought in 1992; and Technology, the UK's largest personal computer distributor.

atacbecker, as ICL's senior managers recall, was a case study in how not to manage an acquisition. The company sent in its own manager and accountants who ran rough-shod over local management. Sensitivities were bruised, so the assimilation took longer and cost more than envisaged.

When ICL acquired Nokia Data, it was determined not to make the same mistake. PC operations were consolidated in Scandinavia. The chief impact, however, was cultural, a pattern repeated with the acquisition of Technology. "We needed a shot of the faster-moving PC culture," Mr Eadie says.

So what is ICL's future? It is likely to remain medium sized; it is unlikely to make more money this year than in 1993, as Mr Bonfield sees no improvement in the market, He believes, however, that ICL's reorganisation will be complete this year. Largely freed from debt through the rights issue and from restructuring charges, the company should return to significant profitability in 1995, he predicts. This could mean profits eventually reaching 5 to 6 per cent of revenues.

The worry now is not compla-cency, but battle fatigue: "We drive this company hard, but it's the only way to do it." Mr Bonfield says. Mr Todd agrees: "We have gone through world war three, but we cannot relax. The fight goes on."

# Time for the new Italy to take power



Economic growth and competitiveness are the world's dominant political themes today. In North America and Asia, the main con-PERSONAL CETE Of government

VIEW and business is how to achieve a strong position in the global economy. Ideology has been abandoned in favour of a pragmatic search for the quickest, surest way to hoost competitiveness and growth, and to turn the prospect of a new cycle of international economic growth into reality.

In Europe, on the other hand, the hreak with the past is not ao clear-cut. Political attention seems to focus on the past rather than the future; on defence rather than attack; on reinvenating the old rather than creating the new. The result is yet another year of missed business opportunities for Europe, and rising unemployment to socially unacceptable levels. This contradiction is even more

evident in Italy. Here, political debate has either failed to take account of the future now emerg-

departments and combative

deadly sin: ambition. Brum is

authority.

water ...

England's largest metropolitan

councillors? It has to be the eighth

The council is silent over who

wants the £80,000 a year job, but

word is that among the 10 names

in the frame are two women -

Sheffield's Pamela Gordon and

Southwark's Anna Wyatt. There

is thus the intriguing possibility

elections in May. Does she favour

either Gordon or Wyatt? The last

woman chief executive in the West

Zealand. Must be something in the

Sounds of merchant banks on

the move in the City of London.

of a female alliance emerging.

Theresa Stewart, the current

Labour leader, faces difficult

Midlands - at Sandwell -

Removal time

eventually decamped for New

ing; or it is confined to impromptu, demagogic assertions that ignore the global competition Italy should be preparing to meet, if it wishes to avoid being excluded from the ranks of industrialised nations.

Now, in the run-up to an election that will be decisive for the country's future, the electoral scene is far from inspiring. On March 27 and 28, Italians go to

the polls under a new electoral system - the outcome of a referendum which vetoed the intolerable regime of corruption and inefficiency generated by the lack of alternatives to the dominant political system. For months, debate centred on how to create an electoral system that would permit alternation between a progressive pole and a conservative pole, enabling Italy to stand along-side the great western democracies.

But partly because the new electoral law was the reluctant product of a parliament forced to act by the result of the referendum, the elec-tions will take place in a climate dominated by three main factors. · First, the reality of transformation: to a great extent these elec-tions are in the hands of the off-

No sooner has BZW, Barclays'

spring of the old political system, of whom the most brazen representative is the standard-bearer of Forza Italia, together with the embalmed remains of certain areas of the left. Second, the risk to economic self-sufficiency: a real risk which hes beneath the wonder cures promised by the right, or the sermons of the outdated apologists of the left. • Third, confusion: the contest is riddled with left-over ideologies

Behind all the manoeuvrings of the politicians there is a country which has decided to move on

which have been disinterred for the

Such suicidal behaviour may not be surprising coming from the new right; hut it is alarming when it appears among the more serious lements of the centre and the left. What politicians should be doing is explaining to the electorate that Italy is not the centre of the world.

or even of Europe; and that if we want to remain at the forefront of world markets, we have to identify our competitive advantages and abandon rearguard actions and verbal wars. Behind all the manoeuvrings of

the politicians, old and new, in this vital election, there is a country which has decided to move on: this is the real Italy. The country has grown. You need look no further than today's great moral clean-up which, in its pursuit of a whole generation of corrupt politicians, has reached a scale unparalleled in any

other country.

Or the spirit of sacrifice displayed by countless citizens in the face of an often chaotic, punitive fiscal system and an inefficient, oppressive public sector.

Or the vigour and innovative capacity of an entrepreneurial class that has reasserted its competitiveness despite the constraints under which it operates. The remarkable improvement in the trade balance In 1993 from L4,000bn to L50,000bn

was not due entirely to devaluation.

This Italy must be represented politically by dignified action and

No sooner had Keegan blown

thought. The growing interest in its financial markets demonstrates that Italy's international image is changing. And foreign observers' view of the new Italy is far more accurate than the picture created by the election campaign.

lialy cannot afford to forego the chance to take part in a new cycle of growth in an ever more interconnected world. This will require rational decisions, calculated sacrifices and an acceptable balance between recovery and growth. It means social consensus and a government capable of plotting an intelligent, pragmatic and credible course.

There is no room here for slogans

and miracle makers. In today's world, non-alignment with other nations means economic and social decline, with the risk of losing the basic values of democracy and free-

This is the "Italian risk" two weeks before the elections.

Carlo De Benedetti The author is chairman of Olivetti

### **OBSERVER**

#### Nails out at international investment bank, Birmingham been given the green light to move in to its parent's soon-to-be-vacated Royal Mint Court headquarters, ■ Masochistic voyeurs have enjoyed watching Birmingham'a local government draw up a list than word reaches Observer that Barings, the City's oldest merchant bank, is also flitting. Barings, which has been at 8 of candidates to recline on the bed Bisbopsgate since 1807, is coy about of nails marked chief executive; its future movements. However, the present occupant, Roger Taylor, has decided to go early. it is clear that if it goes through Why should intelligent with its plan to combine its merchant bank and fast-growing bureaucrats step in between the warring fiefdoms of council securities business under one roof

Bishopsgate. The obvious choice is for Barings to regroup at Baring Securities' vulgar America Square headquarters near the Tower of

there is not going to be enough

room for everybody at 8

Tondon. But that would mean Barings giving up its precious ECC postcode. which it shares with the Bank of England and other pukka members of the British banking community. No doubt the young turks now running Barings couldn't care less about their postcode.

But there are still some customers who worry about such things.

#### Zebra crossed

Not everyone hates Britain'a motorway cones. Footballers like to use them to practice their

dribbling.
Indeed, Newcastle United has

the whistle than Brown had paid £1,000 to have his team's 50 red and white cones recovered in different colours so they wouldn't clash with United's black and white Reptile house ■ Who says that members of the

BAWA

'I suppose being labelled a fake

is preferable to being in a

sex scandal'

at its Durham training ground that

it has just had them kitted out In

Apparently, the Department of

white strip for its motorway cones

Transport's regulation red and

is identical to the colours of

Keegan turned to club

which supplies cones and

contractors.

United's rivals – Sunderland. So United's manager Kevin

vice-president, Tom Brown, for

help. When Brown is not watching United, he's chairman of

Northumberland-based RTM Group.

contra-flow cylinders for motorway

the cluh's colours.

become so attached to the cones

European parliament don't have

a sense of humour? Take Johanna-Christina Grund, a German Euro-MP. She has floated

the notion that, given the high annual rent for the new parliamentary debating chamber - Ecul00m annually for 27 years visitors should be charged an entry fee.

She says it should "be at a similar level for national museums, 200s, etc in Belgium". MEPs might occasionally be mistaken for stuffed exhibits and sometimes behave like animals; but really, let's have a pan-European aggregate rate, vlease.

Scandal fiasco

■ When does the Whitewater brouhaha turn into a scandal? The resignation of Webster Hubbell, the US associate attorney general and US presidential buddy, raises a question which is vexing careful newspaper editors. Up to yesterday, Observer's electronic database showed a total of 347 references to Bill and Hillary's Whitewater problems. There were 178 mentions of 'scandal' and just 111 'affairs'. Poor old uproar, fiasco, furore, hlemish and slur don't warrant a mention; fuss gets just one.

Of course statistics are no guide to anything. With the tally to date

standing at one suicide and two resignations, the verdict of ooe ex-member of President Bush's administration is: "Right now it's an affair. Four more resignations. then it's a scandal."

Rapid progress

Whether or not Whitewater is more than an affair, it has clearly gripped the imagination of London's stockbrokers. In less than a week various bits of Warburgs, James Capel and UBS have sent out research with the same heading Whitewater Rafting.

Hey guys, let's show a hit more creativity. In an effort to raise the standard of headline writing among City stockbrokers, Observer is offering a bottle of the finest malt for the most original Whitewater headline on a piece of published research.

#### Strafed

■ What's the difference between Nato and the IRA?

The IRA knows how to enforce

### FINANCIAL TIMES

Wednesday March 16 1994



Frederick House, Fulford Road. York YO1 4EA. Telephone 0904 632401. Fax: 0904 610256.

### Mandela sends Zulus a warning on 'toy tyrants'

Patti Waldmeir sees ANC chief triumph in Mmabatho

Mr Nelson Mandela, leader of the African National Congress, yesterday made a triumphal entry to the Bopbuthatswana capital Mmabatho, congratulating the people of the black "homeland" for ousting President Lucas Mangope, and issuing a veiled warn-ing that the same might happen to Zulu Chief Mangosuthu Buthe-

Some 40,000 people cheered wildly as Mr Mandela entered the futuristic Independence Stadium huilt to commemorate Bopbuthatswana's granting of independence from South Africa in 1977. a sovereignty which only Pre-

He had harsh words for Chief Buthelezi, leader of the KwaZulu hlack homeland, sayiog last week's events in Bonbuthatswana would "send a signal" to him and to the white right wing.

"The people have risen and tyrants have fallen. This message will not be lost on people living under other toy tyrants in this country," he said. The comment bordered on a direct invitation to the people of KwaZulu to revolt.

By Lionel Barber in Brussels

The European Commission

yesterday served notice that it

intends to take a more active role

in policing joint ventures in the

fast-growing telecommunications

Mr Philip Lowe, head of the

Commission's merger taskforce,

said Brussels would look closely

at industry proposals for

co-operation that might restrict

He told the Brussels Telecom-

munications Forum, a private

grouping, that technology was

moving so fast that it was out-

stripping decision makers and posing a challenge to regulators.

Frankly, we have to watch it."

pean Union would have to accel-

erate its agreed timetable for lib-

eralising national markets for

voice telephony from January

1998 - a view sbared widely

Mr Lowe's speech provided the

first clues on future regulatory

industrial, energy and agricul-

tural lobbles for more credits. However, he has also tried to

make clear to the IMF the sever-

ity of the crisis he faces. The

draft budget - which has not yet

gone to the state duma, or lower

inside the Commission.

Continued from Page 1

Mr Lowe predicted the Euro-

market.

competitioo.

improve the political climate in Natal, where at least nine people were killed yesterday in fighting between supporters of the ANC and Chief Buthelezi's Zulu-based Inkatha Freedom party.

Nor do they improve prospects for the success of talks later this week between Mr Mandela and Zulu King Goodwill Zwelethini, aimed at ensuring Inkatha's par-ticipation in the first all-race elections in April. The king has strong links to Inkatha through Chief Buthelezi, who is chief adviser to the monarchy.

Mr Mandela denigrated the threat from Inkatha, saying he would suffer "no sleepless nights" over its promise to dis-rupt elections. The right wing. and hy implication Inkatha, were "no more than those who bark without being able to hite." he

ANC leaders, who previously expressed grave concern at the right's potential to disrupt elections, have gained confidence since armed rightwing whites were chased out of Bopbuthatswana on Friday. This new confi-Mr Mandela's remarks will not dence is likely to undermine the

policy in telecoms, a booming

market which could see most of

Europe's state companies priva-

tised before the end of the

Mr Lowe suggested two areas

where the competition director-

ate would either extend its pow-

· Lowering the thresbolds

above which Brussels automati-

cally vet deals, from Ecu250m

(\$275m) annual turnover in the EU market to Eculoom. Mr Lowe

said telecom ventures usually

started with a low turnover hut

Examining the definition of

industrial "co-operation". Joint ventures may not amount to mar-

ket concentration but they could

still restrict competition, Mr

in the past year, the director-

ate's merger taskforce has vetted

10 cases involving telecoms oper-

ators, including a British Tele-

com proposal to provide valued

added services with MCI, a US

telecoms company. Overall, it

income of about Rhs120,000hn -

leaving a budget deficit of about

10 per cent of gross national

product, a figure generally regarded as tight in present cir-

The income, however, is

already proving wildly optimis-

tic. Covernment insiders said

yesterday that government

income, mainly from taxes, was

running at only some

cumstances.

G7 urges IMF to let Russia have \$1.5bn

could grow very quickly.

ers or "clarify" its jurisdiction:

ANC's commitment to hring Inkatha, the only remaining party boycotting the poll, into a constitutional settlement

Mr Mandela arrived in Mmabatho yesterday morning to a low-key reception in the streets. Later in the day the largest crowd ever for a public event in Bophuthatswana turned out at the Independence Stadium, but it remained about a third empty. The stadium is widely seen as a symbol of President Mangope's

Mr Mandela condemned the looting which destroyed Mmahatho's shopping district, hut ANC officials made clear to husiness people that an ANC government would not compensate them for what the officials implied was a necessary part of

the liberation struggle. However, Indian business people, many of whom lost all their stock, turned out to greet and garland the ANC leader. One Asian husinessman said: "The Indian community are jumping on the bandwagon. They used to support Mangope, now they sup-port Mandela."

looked at 200 cases in all indus-

In one case Philips, the Dutch

electronics giant, withdrew a pro-

posed joint venture with Sie-

mens, the German industrial

company, for a big optical fibre

the advantages of co-operating

with Brussels. Takeovers of a cer-

tain size are automatically inves-

tigated within a month. Where serious doubts exist about their

effect on competition, they are

subject to a four-month inquiry.

Separately, companies consider-

ing joint ventures or mergers can

• The Commission approved

BMW's purchase of the UK car-

maker Rover from British Aero-

space yesterday. Also, in its first

ever ruling in the newspaper

publishing sector, it approved the

Mirror Group-led consortium's

purchase of Newspaper Publish-

ing, which publishes the Indepen-

dent and independent on Sunday

Rhs70,000hn to Rhs80,000bn a

Even to produce the figures he

has, Mr Sergei Dubinin, the act-ing finance minister, sharply cut

the bids of all the main minis-

tries - limiting the military to

Rbs37,000hn when officers are

prophesying army mutinies

unless it is given Rbs80,000hn, or

more than 40 per cent of pres-

ently hudgeted expenditure.

in the UK.

seek informal guidance.

Mr Lowe reminded industry of

trial sectors.

cable project.

Joint ventures accused of restricting competition EU to tighten telecom rules

> than expected.
> On Wall Street, bond prices rose in early trading as investors interpreted the encouraging core producer price figures as a sign that rapid growth was not yet patting neward pressure on

inflatioo. capacity utilisation rate indicate ter than its loog-term potential rate of growth. That raises the chance that Fed governors and regional presidents - who meet in Washington next week to dis

Recent signs of strength include a surge in production and sale of cars and light trucks - usnally evidence of bnoyant

### Fast US spotlight on rates

By Michael Prowse

The US economy is continuing to expand rapidly, according to figures released yesterday, increas ing the chances of another rise

in short-term interest rates. The Federal Reserve said industrial production rose an unexpectedly large 0.4 per cent in February, after a 0.5 per cent gain in January. Most analysts had expected production to be flat or down as a result of the

That indicates little slowdown in economic growth from the second half of last year, when gross domestic product grew at an annual rate of more than 5 per

The Fed also reported a sharp increase in the rate of capacity ntilisation in manufacturing industry to 82.6 per cent - only fractionally below the level tra-ditionally associated with rising inflationary pressure.

Separately, the Commerce Department said producer prices

However, the strong production figures and the higher that the economy is growing fascuss interest rate policy - will tighten monetary policy another

On February 4, the Fed raised short-term rates a quarter point to 3.25 per cent - the first increase for five years. That led to a sharp increase in long bond yields, now about 6.9 per cent, on the assumption that this was the first in a series of tightening

Hopes on Wall Street that eco nomic growth would slow sharply, taking pressure off the Fed to raise rates, are evaporating. J.P. Morgan, the New York bank, is projectiog economic growth at an annual rate of 6 per cent in the second quarter, after a brief weather-related slowdown to 3 per cent in the present quarter. That would be not far sbort of the 7.5 per cent growth rate of the final period of last

# growth puts

severe weather last month.

The figures suggest that industrial ontput is growing at an annual rate of 7-8 per cent in the first quarter.

rose 0.5 per cent last month. However, the increase mainly reflected higher energy prices. "Core" producer prices - which exclude volatile food and energy - rose only 0.1 per cent, less

notch in coming weeks.

# Wolseley builds higher

Wolseley has a habit of exceeding market expectations. Yesterday's 8 per

cent rise in the shares following the

release of half-year figures is a case in point. The company's reticence is partly the cause. More segmental

information and an interim cash flow

statement, for example, might help

investors form a clearer view of what

the future holds. The Stock

Exchange's new disclosure guidelines are certainly no justification for clam-

ming up. While the going is good shareholders will doubtless forgive,

hut such shyness cuts both ways. Wol-seley's creditable history of outper-

formance is punctuated by some uncomfortably sharp corrections.

Yesterday's interim statement gives

no immediate cause for concern. True,

Wolseley will oot enjoy the conditions of the 1980s unless the housing market is stoked into another frenzy. With

inflation low, neither can it count on

stock profits to boost margins. But the

12 per cent increase in UK sales shows how sensitive Wolseley's distribution

business is to eveo a modest upturn in

building activity. Since profits from

European distribution rose by more

than 50 per cent - with presumably little cheer coming from France - the

Tha acquisition of Brossette in

France two years ago might also provide the foundation for a wider European distribution octwork. If Wolseley

can avoid tripping on the acquisition trail there should be growth as well as

recovery to come. While the recent

run-up in the shares argues for

caution, that prospect leaves

long-term holders with little incentive

Slowly but surely Williams Holdings

is digging itself out of the hole in which it fell after its Racal bid failed.

Full-year results show a rapid advance

of operating profit in the second half

thanks in large measure to a hroader distribution base in the US. Cash gen-

eration is also improving with £47m

left over after capital spending, inter-

est, tax and dividend payments have

been met. Just the same, in marking

sheet does oot look strong enough to

sustain much by way of cash acquisi-

tions. More paper might well meet

resistance, especially since dividend

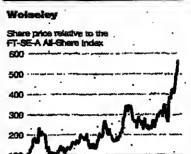
growth is likely to be pedestrian.

operational gearing is clear.

Williams Holdings

### FT-SE Index: 3267.4 (+37.0)

THE LEX COLUMN



1971 74 76 78 90 82 84 86 88 90 92 94

improvement came from a squeeze on working capital, continued restraint of capital spending, which is less than half its peak in 1989, and a virtual end to spending of restructuring provisions. Williams now needs to generate cash from its basic operations. The presumption is that there will be a large beneficial effect from increased volumes once recovery gets under

Yet Williams still does not seem to hava much scope to raise prices. Higher interest rates in the US and tax increases in the UK do not seem particularly conducive to volume growth. There may be some years of dividend restraint before Williams meets its target of two times cover. In the meantime Hanson is on a higher yield and BTR seems likely to offer faster earn-

#### US economy

Yesterday's US producer price data confirmed the Federal Reserve's view that America does not have an inflation problem. But industrial production and capacity utilisation figures show why the bond market thinks it may be about to get one. By most calculations, the US has closed the output gap which opened during the recession. With capacity constraints now at their tightest since 1989, further growth above the long-term trend will probably stir inflation.

the shares up by a quarter since late November, the market may bava hecome carried away. The balance Growth may, however, moderate automatically - last year's fall in the savings ratio is not sustainable and the recent rise in bond yields will slow the housing market. But since most consumers will sit tight with low-cost, has underperformed by 13 per cent in A significant part of the cash-flow

yields are a stimulus. And while the Fed's initial increase in short-term interest rates has had a powerful psychological impact on markets, its effect on the real economy is small. It the Fed becomes concerned about the pace of expansion, it will bave to push Banesto boars

up short rates more decisively.

That worry will probably keep the bond market on edge over the next few months. Once the Fed acts, however, longer yields may stabilise and fall if the threat of rising inflationary expectations recedes. Shares have remained resilient despite the high anxiety of the bond market. That decoupling may continue. If the rising output and falling unit wage cost fig-ures are any guide, there is a strong profits recovery out there for someone.

#### Mirror Group

Mirror Group Newspapers is in something of a hind. Tahloid newspaper sales are in long-term decline with the Sun's price offensive sharpening the Daily Mirror's falls. MGN is there-fore keen to diversify. But with lowlyrated shares and gearing of 73 per cent, the group is severely disadvantaged against rivals boasting cash in hand and high-priced paper. MGN's proposed alliance with Newspaper Publishing may yield some cost savings but the deal remains mar-ginal. The ingenuity of MGN's managers in unearthing expansion opportu-nities will be fully tested.

At least MGN can keep profits moving by running its existing businesses more efficiently. Trading margins excluding restructuring charges have already risen to 24 per cent. But further gains should come from moving to Canary Wharf and improved utilisation rates at its print plants. Advertising revenue has been growing strongly as a result of some smarter newspaper supplements and the general market bounce.

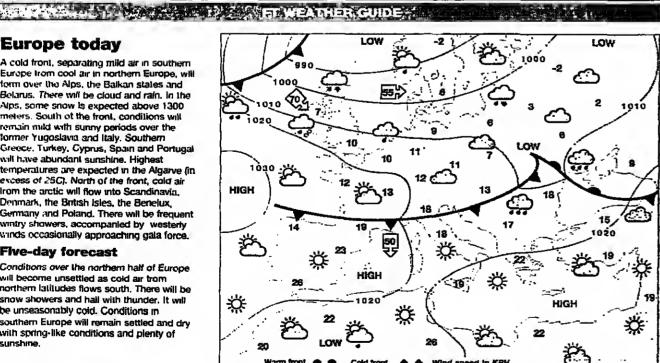
Arguably, MGN has been sensible in not responding more aggressively to price wars. But the 1 per cent fall in circulation revenue suggests it is now being badly burnt by the Sun. The real worry comes if the Mirror's decline endangers its advertising rate card. With such doubts in mind, one can only admire the prescience of the administrators in placing their stake last September. Having outperformed the media sector by 44 por cent in the six months before the placing, MGN fixed-rate mortgages, rising yields are the six months since.

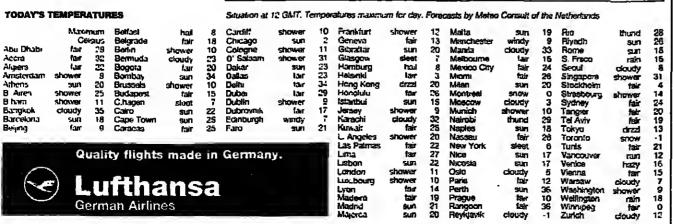
#### required ratification - envisages expenditure of Rhs183400hn and

**Europe today** A cold front, separating mild air in southern Europe from cool air in northern Europe, will form over the Alps, the Balkan states and Belarus. There will be cloud and rain. In the Alps, some snow is expected above 1300 meters. South of the front, conditions will remain mild with sunny periods over the former Yugoslavia and Italy. Southern Greece, Turkey, Cyprus, Spain and Portugal will have abundant sunshine. Highest temperatures are expected in the Algarve (in excess of 25C). North of the front, cold air from the arctic will flow into Scandinavia. Denmark, the British Isles, the Benelux, Germany and Poland. There will be frequent wintry showers, accompanied by westerly winds occasionally approaching gala force.

#### Five-day forecast

Conditions over the northern half of Europe will become unsettled as cold air from northern latitudes flows south. There will be snow showers and hall with thunder. It will be unseasonably cold. Conditions in southern Europe will remain settled and dry with spring-like conditions and plenty of





#### On winning awards.

To win live awards counts for a great deal. What counts even more is that the awards are a statement of our clients' trust: We've just been named by IFR as the "1993 Swiss Franc Bond House of the Year," "Commercial Paper House of the Year." "Equitylinked House of the Year," "Swap House of the Year" and "Options House of the Year." Thank you.



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Wednesday March 16 1994

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#### IN BRIEF

#### JP Morgan backs **Banesto** board

HENRY

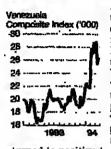
International Property

The caretaker board of Banesto believes it has won the support of J. P. Morgan of the US for a major dilutioo of the troubled Spanish bank's equity as part of a rescue plan. Page 16

Wall Street greets bid The prospect of a secood big takeover in the mutual fund business in the US in a matter of months lit up Wall Street yesterday. Shares in Kemper, the Chicago-based asset management, life insurance and broking company, leapt 50 per cent from Mooday's close oo an uninvited bid from GE

Capital. Page 18 ADR move leads the way An American Depositary Receipt programme launched by Companhia Vale do Rio Doce, the world's largest iron ore exporter, is meant to be a first step in a plan to finance joint ventures with foreign companies. Page 17

Tax tremors in Caracas



A new tax proposed by the Venezuelan government covering most debit transactions at domestic banks has sent tremors through the Caracas stock exchange. When a series of tax bills were presented to congress, the Caracas index fell 4.3 per cent, and over the week shed more than 10 per cent in local currency terms. The market has returned to positive territory this week. Back

Williams Holdings falls by £4.2m Williams Holdings, the UK fire protection, building products and security group announced a £4.2m drop in profits to £153.2m (\$224m), Page 22

Medeva founder quits Mr Ian Cowrie-Smith, the Australian entrepreneur who founded Medeva, the UK drugs group, is resigning his executive position. Page 22

Maid shares at 110p Shares in Maid, the UK on-line business information supplier, were priced at 110p valuing the group at £89.1m - well below expectations.

**Bad time at Saatchi** Charles Scott, group chief executive of Saatchi and Saatchi, described the past 18 months as the worst in his life. Page 22

MGN celebrates Mirror Group Newspapers, the UK newspaper publisher, celebrated its independence from admin-istrators and the legacy of the late Robert Maxwell by announcing higher than expected pre-tax profits.

Wolseley shares rise Shares in Wolseley, the world's biggest supplier of beating and plumbing equipment, soured by 63p to 971p yesterday as the UK group surprised

#### Companies in this issue

with a sharp rise in profits. Page 16

Accord Accord Aston Martin Lagonda Avesta Sheffield CVRD Dongiang Bectrical Emess Evans Halshaw Fujitsu GE Capital Generale de Banque Graseby Hall Engineering ICL . JP Morgan KOP

12 Kugeliischer 18 Uonheart 23 Lyonneise des Eaux 24 MGN 17 Maid Medeva Microsof 16 Minebea 15 NKK 22 Norske Skog 22 Owerl & Robinson 17 Paterson Zochonis 12 16 Postipankki 25 Ransomes 20 Robert Wiseman 22 Royale Belge 24 Rugby Estates 25 SGS Saatchi & Saatchi Scholes Group Seaffeld Resources Sotheby's Stone-Consolidated Tiphook United Biscuits Wainhomes Wassall Williams Holding

Market Statistics

Foreign exchange Annual reports service Little equity options Bond prices and yields London share service London tradi options Back Page Managed tunds service 30-34 Commodities prices Dividends announced, UK EMS currency rates Eurobond prices Found interest indices New anti bond Issues Fixed interest indices
FT-A World Indices
FT Gold Mines med ex
FT/ISMA mtl bond ex
indices
FT/ISMA trib bond ex
Expression indices Short-term int rates US Interest rates FT/SMA mtl band Svc FT-SE Actuaties indices

Chief price changes yesterday

FRANKFURT	to see			-			
Pises				Rises	1425	+	53
Bayer Hypo	456	+	10.5	Asci		-	62
Dresiner Bank	407	+	7.5	Chargeurs	1487	+	
Goldscharids	625	+	10	L'Oreal	1313	+	48
Porsche	912	+	22	Radiotecho	553	+	34
Schering	1073	+	37	Union immob	700	+	29
Fella				Palls			
Ball & Berger	<b>R91</b>	-	29	GTM-Entreposit	480	-	26
NEW YORK	37			TOKYO (Yes)			
Rises	-			Rises			
CBS Inc	310	+	77:3	Acate Optical	509	+	17
TemberianC	34%	+	240	Fujita Kanko	2400	+	160
Starbucke Deb	991-	•	5	Komatau	972	+	33
Folls				Mission Stret	436	+	26
Grupa Radio	2516		1	Toyo Tires Rub	41D	÷	25
Pernga Co	23		425	Falts		•	
Ventrilex IRC	Z.Y.	-	233		680	_	15
PARIS (FFA)				Toel		_	
New York pr	icos el	123	10pm.				
LONDON (Pe	ипсе)			Sedawick	212%	+	11%
Rises			5	Tiphack	55		5
Andrews, Sylves	90	+	В		975	Ĭ	73
Bakdwin	113	•	ž	Wolseley	313	+	13
Barctays	555	+	45	Falls:			_
Elbeot	21	+	214	Avesco	99	-	6
Emoss	32	:	17	Raignetiff	328	-	72
Evans Halshoov	549	-	20	Brown & Jack's	24	_	39
Greggs	73	+	7		88	_	9
Medeva	155	+		Exercist Foods			

### Regulators move to limit risks on OTC derivatives

By Norma Cohen, Tracy Corrigan and Laurie Morse in Chicago

British and American securities regulators yesterday announced a joint effort aimed at limiting risks to the international financial system posed by the explosive growth of over-the-counter derivative instruments.

These instruments are not traded on exchanges, have no official market price, and are tailor-made to suit the needs of individual counterparties. Because

and there is no objective way to measure their value, banks and securities firms may assess the risk differently.

Regulators have no desire to

stifle product innovation but are concerned that securities firms have proper internal management controls to help them account for and understand the risks they take and to ensure adequate capital is set aside. The agreement is between the

UK Securities and Investments

their design is not standardised Board, and two US bodies, the Securities Exchange Commission and the Commodities and Futures Trading Commission.
"Everyone feels there is no

sense in trying to regulate this product," said Mr Andrew Large, chairman of the SIB. "What we want is to ensure that securities firms have the capital base, the cootrols and the

understanding of the risk."
The move stemmed from talks last year between the SEC and the SIB and follows a similar

banking firms. Mr Carter Beese, a commissioner at the SEC said: "Over the past year there has been a very high level of co-operation

between banking and securities anthorities in the US." In addition to promoting internal management controls, the SEC and the SIB want to ensure that firms understand how "severe market conditions" affect the value of their securities, that there be a common approach to

Lyonnaise des Eaux-Dumez: recovery under way

agreement between US and UK the accounting recognition, measurement and disclosure of positions and that there be enhanced information sharing.
Mrs Barbara Holum, actiog

chairman of the CFTC, said the near-collapse of MG Corp, the US arm of the German group Metallgesellschaft, due to oil and gas derivatives dealings, underscored the urgency of such an agree-

Over-the-counter derivative traders gave cautious eodorsement to the pact, saving it paral-

lelled the agenda of international banking regulators. "The agencies appear to be moving along the same lines as the banking regulators.

We had been concerned that the securities regulators might be moving in a different direction," oo issues like transaction netting, said Mr Joseph Baumann, President of the International Swaps and Derivatives Association, and director of global derivatives trading for Citibank. Background, Page 21

**Bayer lifts** 

hopes for

German

By Christopher Parkes in Frankfurt

chemicals

Hopes of an end to the German

chemicals industry's four-year

profits slump were raised yester-

day by the release of better-than-

expected earnings figures from

In line with the group's Inre-cast, the dividend was un-changed at DM11 and sales fell

0.5 per cent to DM41bn (\$23bn).

Although Mr Manfred Schnei-der, chairman, had suggested in January that earnings would be

better than forecast, net income

of DM1.37bn, down 12.2 per cent,

and pre-tax profits of DM2.35bn.

down 12.6 per cent, were ahead

of many analysts' expectations. When Bayer reported pre-tax

profits and sales down 19 per

cent and 2 per cent respectively

for the first nine months of 1993.

#### ■ Building and public works arms to combine ■ Much reduced exceptional costs

### Lyonnaise des Eaux-Dumez doubles profit

By John Ridding in Paris

Lyonnaise des Eaux-Dumez, the French utilities and communicationa group, yesterday announced both a strong recovery in 1993 profits and a restructuring of its construction and public works activities to strengthen their position in international

Mr Jérôme Monod, chairman, said preliminary results showed net profits of FFr800m (\$133m) last year, more than double the FFr379m achieved in 1992, but still below the previous year's FFrL17hn. Turnover rose by 3.5 per cent to FFr93.6bm.

According to Mr Monod, the improvement in results and signs of recovery in the construction sector helped explain the group's decision to merge the building and public works activities of its Dumez and GTM-Entrepose sub-

The combined company, to be

called Dumez-GTM, will have annual sales of about FFr25bn and a workforce of 35,000. According to the chairman, it should allow the group to compete more effectively for significant infrastructure and public works contracts in France, other parts of Europe and in south east

Industry observers, however, expressed caution about the benefits. "It may bring more clout, but there is unlikely to be a large reduction in costs from merging two construction groups," said

The group said that no job cuts would be involved in the reorganisation. Mr André Jarrosson, chairman

of GTM-Entrepose, said the changes should be completed by the summer. Dumez-GTM will be held 50-50 by GTM-Entrepose and Dumez. Lyonnaise des Eaux-Dumez will continue to bold 60 and 100 per cent respectively of GTM-



Entrepose and Dumez GTM-Entrepose, which also has significant non-construction activities such as engineering and offshore contracting, will retain its market listing.

Shares in GTM-Entrepose fell by FFr28 to FFr480, reflecting

concerns about the impact of the restructuring on minority shareholders and a reduction in net profits from FFr202m to FFr170m. By contrast, Lyonnaise des Eaux-Dumez exceeded market expectations with its turnsround, pushing shares up FF18 to FF1592.

Last year's improvement reflected a reduction in exceptional charges for property and construction. "The rise in profits was more the result of lower provisions than organic growth," said Mr Ben Uglow, construction analyst at Robert Fleming.

the management said it expected a fall of 20 per cent in gross earnings for the full year. The group, which had previ-ously predicted flat profits for 1994, is likely to offer a clearer view of prospects at its annual

press conference on Friday. Bayer has traditionally fared better in recession than its main domestic rivals, Hoechst and BASF - bnth of which announced a DM2 cut in their 1993 dividends - because of its strength in healthcare and relative lack of reliance on basic chemicals. The drugs businesses generate two-thirds of profits.

Healthcare sales were 5 per cent up at the nine-mooth mark, desptte reductions in domestic bealth services.

The supervisory board yester-day agreed to propose an end to voting restrictions, imposed in 1975, at this year's annual meeting. Shareholders' voting rights have been limited to 5 per cent regardless of the size of hulding.

### Emotional attack on Rover's sale to BMW

By Kevin Done, **Motor Industry Correspondent** 

Rover group, the last British-owned volume car pro-ducer, will officially pass into the ownership of BMW, the German carmaker, on Friday, but only after a bitter expression of oppo-sition from small shareholders in

British Aerospace.

The takeover cleared the two final burdles yesterday, when it was approved by both the Euro-pean Commission and BAe share-

results season for the UK's occupa-

tional pension schemes. Trustees

are poring over

sheets of opaque

investment numbers, the two main

measuring agencies are about to publish their aggregated returns

bolders. Shareholders at BAe's strators with one 23-year-old damaging Britain's relations with extraordinary general meeting Land Rover protested, armed Japan. The sale of Rover to Gerextraordinary general meeting voted 111 to 42 on a show of hands to reject the deal, but it was passed overwhelmingly by proxy votes of 119.6m to 2.9m.

BMW is paying £800m cash and taking over £200m of net debt and £700m of off-balance sheet funding to purchase an 80 per cent stake in Rover.

The BAe board has faced the unremitting bostility of small shareholders to the sale. Outside the meeting a handful of demon-

Barry Riley

Break-up threat to pension

Land Rover protested, armed with a couple of union flags and two placards declaring "Sale of Rover Industrial Dunkirk" and "European Union means death for British industry". Inside the meeting the atmo-

sphere was much tougher, and Mr John Cahill, the departing BAe chairman, floundered as he was bombarded with flerce criti-cism and emotional outbursts. The BAe board was accused of

"selling the family silver" and of

many was called "offensive" and

The integrity of the board was stracked, it was secused of telling "half truths and untruths", of selling the wrong business, and of failing to win written guarantees for keeping Rover jobs and

its technology base in the UK.

There was loud ironic applause when Mr Cahill was told, "you are on your way back home to the US with a £3.5m benus", and

the BAe chairman struggled to control the meeting Why did BAe have to increase its borrowing limits when it was receiving £800m in cash, woo

dered one shareholder. But after two bours of rancour the BAe proxy votes ensured that Britain will no longer own a vol ume carmaker.

The European Commission said yesterday that BMW's takeover of Rover would "only have a limited effect in terms of industry concentration."

#### fund fantasy league per cent. Morgan Grenfell did well too, and among the smaller contenders Newton hit 35 per they represented 65 per cent of they represented 65 per cent of the world ex-UK capitalisation. Many managers, however, have

and fund managers are preparing variously to boast or to make excuses. But as the annual league table exercise nears its climax, there is a strong feeling that the game is changing. Britain's unique focus on a shrinking universe of so-called balanced managers who are engaged in the tweaking of nearconsensus strategies may be

shifting. As pension plans become ever more mature - that is, they move towards e positioo where they will pay out more in benefits than they receive in contributions - their risk tolerance grows smaller and their need to match their assets in a customised way to their individual liabilities

becomes greater.

Yet if the old nrder is going out, it is retreating in some style. According to provisional figures from one of the measurers, Caps, the median fund returned 29 per cent last year, a result only beaten once (in 1989) in the past decade. The five-year average annual rate of return for the median fund now works out at 16.7 per cent, a long way above assumed actuarial returns which are based on a small margin over growth in average employee

Certain managers achieved exceptional returns last year,

cent. The market leader Mercury Asset Management keeps its fig-ures to itself - there is a wide dispersion among its hundreds of client funds - but Gartmore and Phillips & Drew Fund Manage-ment both had unexciting years: Gartmore was pulled just above the median at the end of the year by Hong Kong but PDFM stayed just below after its bearish dash for cash proved ill-timed in the final quarter (though it will have

As pension plans become more mature, their risk tolerance grows smaller

enjoyed this year so far). But with equity and bond markets booming worldwide the value added by the everage manager does not seem to have been substantial. No great strategic initiatives eppear to have been taken in 1993. According to Caps, exposure to UK equities drifted by 2 percentage points to 58 per cent of the average portfolio, while overseas equities expanded by 1.5 points to 24.5 per cent. Overseas bonds at 6 per cent scarcely budged, nor did UK fixed interest bonds at 3.5 per cent (the UK government's £50bn (\$73bn) gitt-edged selling programme

passed pension funds by).
The biggest current bets
spear to be in international equity allocations, where the US such as Schroders with almost 33 and Japan together accounted for

recently been going back into Japan and moderating the extreme exposure to continental Europe and the Pacific Rim (ex-Japan). The latter two regions accounted for 65 per cent of pension fund overseas equity holdings, but for only 24 per cent of the world ex-UK market.
Despite these tilted weightings.

the present allocations of UK pension funds can be almost wholly explained by the passive cumulative impact of past returns. Instead of targeting an asset allocation and then periodically rebalancing (by selling assets that have outperformed and buying others that beve underperformed) the managers have let their winners run. That may sound reasonable but it ignores the accumulation of risk.

Now the balanced managers have reached an 82 per cent exposure to equities. Some pension plans such as that of British Rail are beginning to buckle under the strain and set up dedicated bond portfolios which are better matched to their ever-shortening liability structure.

More generally, the fully-discretionary mandate is being phased out in favour of beochmarks, usually set in terms of a combination of indices (or for a specialist mandate, only one). This process is rapidly turning the general performance table into a kind of fantasy league, which will have to be replaced by many different specialist league

It will be a whole lot more rational but a whole lot less fun.

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#### INTERNATIONAL COMPANIES AND FINANCE

### ISS increases profits but leaves dividend unchanged

By Hillary Barnes in Copenhagen

ISS, the industrial cleaning group which plans a listing on the New York Stock Exchange this year, reported an increas in pre-tax profits to DKr593m (\$60m) in 1993 against DKr377m in 1992.

Net profits advanced to DKr462m from DKr266m, while turnover was up at DKr13.30hn from DKrIt.35hn, of which 38 per cent was in the US. 35 per cent in Scandinavia and 24 per cent in Europe. Group employment increased to 125,900 from 115,000.

The group said the 17 per cent advance in turnover and 13 per cent increase in operating profits took place while

By Gillian Tett in Brussels

per cent last year.

Royale Belge, Belgium's largest

insurance group, yesterday

said that an expansion in its

life insurance businesses had

helped push profits up by 11

Consolidated profits for 1993

were BFr4.9bn (\$94m), up from

BFr4.4bn in the previous year.

Turnover rose above BFr100bn

for the first time, to BFr104.4bn

The board is proposing e div-

idend of BFr160 a share, up

soar on result

Shares in Wolseley, the

world's biggest supplier of

heeting and plumbing equip-ment, soared by 69p to 971p

yesterday as the UK group yet

again surprised lbe City of

London with e sharp rise in

Pre-tax profits for the six

months to January 31 rose by

83 per cent lo £87m (\$127.02m)

from £47.6m. Analysts bad

Turnover rose from £1.15bn

to £1.54bn, including £92.5m

expected around £70m.

from acquisitions.

Lex. Page 14

By David Blackwell

in London

interim profits

important markets such as Finland and Sweden were in recession and against e background of currency turbulence. The Swedish and Finnish currencles depreciated against the krone by around 20 per

The \$93.5m acquisition of the

National Cleaning Group of the US on June 1 doubled the size of the group's North American operations. An unchanged DKr10 per share dividend will be paid, but after a one-for-five subscription issue last year the total pay out increases to DKr51.9bn from DKr43.3hn. The East Asiatic Company, the trading group with extensive interests in East Asia,

moved back into the black

with a net profit of DKr144m in

from BFr147 the previous year.

Mr Jean-Pierre Gerard, chief

executive, said that the

improvement had been helped

by the healthier financial cli-

mate and the restructuring

programme which the com-

pany has implemented in the

This restructuring, which is

expected to lead to a 20 per

cent cut in the workforce over

eight years, has divided the

group into two specific

operations, one of which deals

with independent brokers, the

Mirror Group Newspapers, the

UK newspaper group, yester-

day celebrated its indepen-

dence from administrators and

the legacy of the late Robert Maxwell by announcing

higher than-expected pre-tax

The turnround from a loss of

£83.7m in 1992 included an

exceptional gain of £58.1m,

against charges of £121.2m. The group was able to release pro-

visions of £60.8m as more

money was recovered for plun-

Sir Robert Clark, chairman, long-term det said 1993 had been "a year of Lex, Page 14

dered pension funds.

profits of £131.9m (\$192.57m).

Wolseley shares | MGN back in profit

By Raymond Snoddy

in London

past four years.

1993 compared with a loss of DKrl.18bn in 1992.

Profit after net financial items increased to DKr275m from a 1992 loss of DKr128m. Sales were up at DKr11.12bn from DKr10.29bn for the companies continuing in the group. The group has undergone major surgery over the past 18 Australia and New Zealand.

months under a new chief executive, Mr Michael Fiorini, selling off its container line sbipping services and the Plumrose food processing companies in the UK, the USA, Net interest-bearing debt has been reduced to DKr2.9bn from DKr5.9bn over the past year, while return on cepitel invested improved from 3.6 in

1992 to 6.3 per cent last year.

other with salaried agents.

With Royale Belge now pre-

paring to expand into other

narts of the EU insurance mar-

ket, the group would be aiming

for a profit increase of between

8 and 15 per cent in 1994, its

seen strong results from the

life insurance sector, which

forms 31.4 per cent of its busi-

ness in Belgium, Its fire and

automobile insurance sectors

had recorded e loss in the pre-

vious year, the group admitted

success and transformation for

cent to £115.9m on turnover up

2 per cent at £476.1m for the 53

weeks to January 2. Profits

before tax and exceptionals

were £73.8m. against £32.5m. Underlying earnings per

share rose to 15.1p from 5.8p

and the company planned to

The strengthening of MGN's balance sheet - net borrowings

during the year fell from £392m.

to £335m - meant that the

company intended to return to

the banks to restructure and

negotiate more medium and

long-term debt.

resume dividend payments.

Trading profits rose 19 per

Mirror Group Newspapers".

But although the group had

board of directors said.

Life side boosts Royale Belge porate clients.

dividends.

### Dana Corp buys 47% stake in

By Christopher Parkes

Dana Corporation of the US has agreed to buy a 47 per cent stake in German vehicle components maker Kolbenschmidt from the troubled Metallgesellschaft metals and engineering group.

deal, which is yet to be approved by cartel enthorities and both companies' boards. but the agreement marks the higgest step so far in the promised sell-off at Metallgesellschaft. Dana, based in Toledo, Ohio, has annual sales of around DM8.6bm (\$4.88m).

### **Business** travel tie-up for Carlson and Accor

By David Buchan in Paris

Carlson Companies of the US and Accor of France are pooling their husiness travel operations in a joint venture, Carlson Wagonlit Travel (CWT), which they plan to develop globally for their cor-

porate clients. With more than 4,000 travel agencies in 125 countries pro-viding \$10.8hn in revenue, they said the joint venture would have B per cent of the world business travel market, 20 per cent ahead of their nearest rival, American

Express.
Through their combined purchasing power and synergies in computer reservation systems and in developing a new travel credit card, the CWT joint venture is aiming for a cheaper service for cor-

The CWT joint venture will be "a real working union, not a paper partnership," claimed Mr Travis Tanner, president of Carlson Travel. However, the two parent groups will keep their respective hotel activities, and even in business travel only envisage e full nerger after their joint activities are working smoothly. Essential - or just extra baggage? page 12

# Kolbenschmidt

in Frankfurt

No price wes put on the

### Banesto wins JP Morgan support

By Tom Burns in Madrid

The caretaker board of Banesto believes it has won the support of J. P. Morgan of the US for a major dilution of the troubled Spanish bank's equity as part a

Backing from J. P. Morgan. which controls Banesto's biggest shareholder, would remove e doubt hanging over Banesto's AGM, scheduled for March 26, when shareholders will be asked to accept a 43 per cent write-down in the par value of Banesto shares. It

would also pave the way for the troubled bank's re-capital-isation by the domestic financial sector.

J. P. Morgan edvised Mr Mario Conde, Banesto's former chairman dismissed by the Bank of Spain in December after inspectors discovered the bank had grossly over-valued its assets. J. P. Morgan engineered a large rights issue for Banesto last year and, through the Corsair Fund that It manages, had invested \$175m of US institutional funds in the Span-

A spokesman for Banesto said yesterday thal although J. P. Morgan had still not delivered its support to the new hoard in writing there had been fruitful and fluid high-level contacts in the past weeks with the US bank. Relations with J. P. Morgan had been cool following Mr Conde's sacking.

The spokesman said there had been no contact with Mr Robert Mendoza, the J. P. Morgan vice-president who introduced the Corsair Fund to Banesto and masterminded the

gan's office in Madrid, which had e limited role in advising Banesto's former management had been e party to the renewed contacts.

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are the contract of

It is believed that the Corsair Fund could make a further investment in Baneeto's restructured equity hase to remain a significant sbareholder in the bank. Under the proposed write-down and the subsequent re-capitalisation. the Corsair'e current 7.9 per cent holding in Banesto will be diluted to 4.5 per cent.

### SGS advance curtailed by SFr27m restructuring charge

Générale Société Surveillance, the Swiss inspection and insurance loss adjusting group, reported e 1.3 per cent rice in net income in 1993 to SFr196.1m (\$91m) in spite of e SFr27.2m exceptional charge for discontinued activities.

Earnings per share grew fas-ter, 7.15 per cent, to SFr22.02 per registered share and SFr110.10 per bearer share, due to the successful campaign last year to buy back for cancella-tion 5 per cent of the share capital. The directors have recommended a 7 per cent rise in

By Ronald van de Krol

Wolters Kluwer, the Dutch

publisher which is expanding

rapidly overseas, posted a 23

per cent increase in net profit

last year, with a large part of

the rise due to a recent string

The company, which said

yesterday that It expected to

expand into five more Euro-

pean countries this year, saw net profit rise to F1318m

(\$165m) from Fl 258m in 1992.

Turnover grew to Fl 2.62bn

from Fl 2.36bn, while the divi-

dend is to be raised to Fl 1.52

The importance of recent for-

eign expansion is reflected by

of foreign acquisitions.

in Amsterdam

from FI 1.32.

Mrs Elisabeth Salina Amo-

group looked forward to the current year "with confi-dence", expecting that the effects of internal restructuring and the economic recovery in the US and the UK would boost profits. Mr Serge Pahud, finance director, said no further restructuring charges were expected this year.

Revenues last year were no 6.8 per cent to SFr2.6bn, thanks to 6.3 per cent of internal growth, 1.5 per cent from acquisitions and a negative 1 per cent from exchange rate adjustments, Operating income advanced 8.9 per cent to SFr237.4m.

Wolters Kluwer advances 23%

the fact that more than half of

last year's 21 per cent increase

in operating profit was gener-

ated by companies acquired

Mr Mijndert Ververs, chair-

man, said Wolters Kluwer,

which specialises in profes-

sional, scientific and educa-

tional publishing, hoped to be

able to announce deals in the

Czech Republic and Hungary

The total spent on acquisi-tions in 1994 is likely to be less

than the Fi 700m spent on

acquisitions and fixed asset

investment in 1993, he said.

But in keeping with last year,

acquisitions in 1994 would be

financed from Internal

within the next few months.

during 1993.

resources.

Mr Thierry Chéreau, chief

in Asia, Africa and Letin America offset sluggish performances in Europe and North America. Revenues from European countries were flat et SFrl.19bn, with growth in eastern European countries preventing e decline. Revenues from North America were up 9 per cent to SFr648.6m while income from the Asia-Pacific

the restructuring charges.

region advanced 11.1 per cent Net financial revenues eased

only marginally to SFr59m, in spite of the downward trend of interest rates last year, but pre-tax profits dropped 1.8 per cent to SFr269.2m because of

Wolters Kluwer's biggest

acquisition last year was the

takeover of Sweden's Liber

Group, which fits the compa-

ny's strategy of expanding in

countries that are poised to

become increasingly involved

with the European Union. This

policy also lies behind its inter-

The company expects to see

a further increase in 1994

results, in line with its goal of

achieving an average 15 per

cent increase in profit per fully

diluted share in the years until

1996. In 1996, it hopes to gener-

ate 70 per cent of its operating

profit abroad, compared with

62 per cent in 1993. Turnover in

1996 is projected to increase to

between Fl 3.3bn and Fl 3.5bn.

est in eastern Europe.

#### Norske Skog to raise NKr800m

By Karen Fossii in Oslo

Norway's Norske Skog, one of Scandinavia's largest pulp and paper producers, is making a two-step share issue to raise around NKr800m (\$73m).

In the first step, NKr400m is to be raised through a 1-for-10 rights offering, with preferential rights given to existing sbarebolders to purchase shares of the same class. A subscription price of NKr150 per share has been proposed.

The second step involves enthorisation of the board to issue up to 2,650,000 restricted non-voting 'B' sbares, aimed et international investors, to raise another NKr400m.

"In order to hroaden the company's investor base, it will be proposed that existing shareholders waive their preferential rights for the international offering," Norske Skog said.

Mr Jarle Langfiaeran, a company executive, said the proceeds of the two offerings would increase financial flexibility to undertake a number

of planned projects. He said that in 1994, Norske Skog intended to build a new de-inking plant ln Norway used for the treatment of waste paper. Construction is to begin later this year. At the domestic Tofte chemical pulp mill, there is a programme to gradually convert the mill to total chlorine-free pulp. Elsewhere in Norway, a new saw line is to be installed at an existing mill, while there are a number of other minor projects planned for this year.

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# **CATHAY PACIFIC**

		For the year 31st Dec		
		1993	1992	Change
Profit attributable to shareholders	US\$M	294	386	-23.8%
Shareholders' funds	US\$M	1,847	1,708	+8.2%
Earnings per share	US¢	10.3	13.5	-23.8%
Dividend per share	us¢	5.4	5.4	_

#### "Another difficult year"

"Prospects. 1993 was another difficult year for the air transport industry and 1904 is tinlikely to show any significant improvement. However the industry is a highly cyclical one and there are indications that the second half of the decade will be stronger than the first.

The opening of the new airport at Chek Lap Kok and economic growth in China and elsewhere in the region will arguably make Hong Kong one of the best locations in the world for an airline."

> P D A Sutch Chairman, Cathay Pacific Airways Limited Hong Kong, 10th March 1994

The United States deliar figures shown are for information only, and are translated from Hong Hong deliars at the rate of eightning of US\$1,00 = HK\$1,80 Dividung is declared in Heng Keng dollars

Swire Group



And the countdown is on for the

#### launch of DTB FIBOR futures.

This short-term interest-rate future is keyed to the three-month Frankfurt Inter Bank Offered Rate (FIBOR), a recognised market benchmark.

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#### INTERNATIONAL COMPANIES AND FINANCE

### expects a gradual recovery

By Louise Kehoe In San Francisco

Mr Lon Gerstner, chairman and chief executive of Interna-tional Business Machines, sees no quick fix for the computer company's financial woes. In the annual report to shareholders, Mr Gerstuer says that IBM will recover "over time".

"It won't all happen overnight, but we are making sig-nificant progress." Mr Gerstner says in a letter addressed to "Dear Fellow Investor". He acknowledges, however, that "yon wouldn't know it from looking st the financial results

for the year [1993]."
IBM earlier reported net losses for 1993 of \$8.1bn on revenues of \$62.7bn. In 1992 the company recorded a \$5bn loss on sales of \$64.5bn.

Mr Gerstner charges that the company "failed to keep pace with significant change in the industry". It "has been too bureaucratic and too preoccupied with our own view of the world. We have been way too slow getting new things to the market," he states.

"We believe we can fix these problems because they are caused by us and not factors outside our doors," says Mr Gerstner, directly contradicting past statements by senior IBM managers who blamed IBM's problems on economic pressures and market turmoil.

Mr Gerstner, who last July stated that "the last thing IBM needs right now is a vision," now believes that "strategy is psrticularly important for IBM". He is expected to begin to reveal those strategies at an analysts meeting lster this

IBM's plans, announced last July, to reduce its workforce by 35,000 by the end of 1995, are unchanged. "Based on cur-rent business conditions, we tbink tbat's about the right number," Mr Gerstner says.

Financial data revealed for the first time in the annual report point to IBM's mainframe computers as the crux of its problems. Revenue from mainframe computer hardware declined 27.6 per cent last year, to \$10bn, while personal computer sales increased 23.3 per cent to \$9.7bu.

The company's data storage products division reported a precipitous 18.2 per ceut revenne decline to \$5.1bn, while services revenues rose 32 per cent to \$9.7bn.

The report also shows a sbarp decline in Enropean sales over the past year, with sales in the US and Asia Pacific regions increasing slightly.

Having ontstripped the US for the previous two years, European revenues fell about 13 per cent to \$21bn last year, from almost \$24bn in 1992.

#### **Trans World Airlines**

Following our report of March 9, we wish to make it clear that Trans World Airlines, which sought protection from creditors in November 1992, came out of Chapter 11 late

# IBM chief Brazilian mining group prospects for joint ventures

Companhia Vale do Rio Doce is seeking international partners through its ADR programme, writes Patrick McCurry

A tary Receipt programme launched by new American Deposi-Companhia Vale do Rio Doce (CVRD), the world's largest iron ore exporter, is meant to be a first step in a plan to finance new joint ventures

with foreign companies. The basic programme, under which the company's ADRs will be traded in the US overthe counter market, is likely to lead to a new equity offering in

the US next year.
This should help fund joint ventures with foreign companies, particularly in the pulp sector. The projects will need beavy capital investment in their early stages. Mr Anastácio Fernandes

Filho, financial director, says the company embarked on the ADR programme, launched last week, to attract foreign investors, and to increase its inter-national profile and share liquidity. Currently foreigners own about 3 per cent of the

"It will be easier to issue bonds or other securities with a wider investor hase," he

Created during the second

world war by Brazil, the US and the UK to supply the Allies with iron ore, and later taken over by the government, CVRD has always been regarded as an exception to Brazil's other federally-controlled giants.

While Brazilian governments considered areas such as telecommunications and oil production as strategically important, and took charge of key appointments, CVRD was given greater autonomy so that could compete in international markets. As a result, its management has generally been more independent of political pressures.

ts strategy has been to exploit its buge landhold-ings and deposits hy diversifying into other minerals, such as copper and gold. It has also moved into areas such as pulp and infrastructure. The company's policy has usually been to grow through

joint ventures with Brazilian and foreign companies, often offering exploitation rights towards the cost of the project. These joint ventures, mainly in pulp, copper, kaolin and alu-

minium, have planned capital

investment of about \$1.5bn over the next five years.

"CVRD has not neglected its iron ore business, and has taken minority shares in areas where it lacks experience," says Ms Lika Takahashi, a research director with brokers Baring Securities Brasil.

Despite the company's strong natural advantages and efficient management, it has been hit by the world slump in commodity prices. Net profits for the year to

the end of December 1993 fell 12 per cent to \$262m, while net sales were down slightly at \$2.15bn. The company was also affected by increased interest costs on a yen loan at its Albrás aluminium joint ven-ture. The appreciation of the yen against the dollar contributed to a loss of nearly \$100m. CVRD's rail snd port net-work has now been developed

to generate profits from out-side users. The transport sector was its second-largest revenue source in 1993, providing 16 per cent of net sales. Iron ore and pellets still provide the majority of sales, accounting for 57 per cent last year. Excluding the results of the



Transport was CVRD's second biggest revenue source in 1993

yen appreciation and government tax credits, profits were about \$200m, according to Ms Takahashi, who expects this figure to reach about \$450m hy 1996 if commodities prices recover. Partly because of the price slump, CVRD's shares

appreciated by only 44 per cent in dollar terms last year, com-pared with an index gain of more than 100 per cent for the Sao Paulo stock exchange Following the launch of a restructuring programme in

1990, CVRD's workforce bas

tban 18,000. Analysts expect continued improvements in efficiency, especially since the company won increased operational independence from the federal government, which still owns 51 per cent of shares, in

CVRD's restructuring followed a worrying pile up of deht in the late 1980s. It switched 25 per cent of its debt from the expensive and short-term local market to longer-term paper in international markets. Its current outstanding deht is about \$1.5hn, a debtto-equity ratio of 25 per cent, according to the company. However, very large debts in joint ventures such as the Albras aluminium project are not consolidated.

According to analysts, the company will be open to criticism while it remains govern-ment-controlled. Although CVRD's management believes privatisation is inevitable, it is beset by political difficulties and has fallen off the agenda ahead of October's presidential

Sao Paulo-based mining consultant Mr Juarez Fontana dos

cient and low-cost producer. Nevertheless he says the company remains over-centralised and bound by governmentimposed restrictive legislation on public tenders that slow down decisions and purchases

owever, be maintains the company more flexible, and that more independence may be achieved if changes are approved under a congressional review of the constitutioo. This is under way, but may not be completed this year.

He says the company's priorities for this year are to develop its rail transport network by forming a group to hid for the privatisation of part of the federal railway system.

lt also intends to be more aggressive in its main iron ore market. Last month, CVRD cut its ore prices to Japan, its largest markel, in response to dis-counts offered by Australian competitors. "This year we'll be more aggressive, offering quicker delivery and hetter quality for certain kinds of ore," says Mr Fernandes.

### Avesta aims to raise SKr600m

By Hugh Carnegy in Stockholm

Avests Sheffield, the Swedish-British steel producer, yesterday announced a SKr600m rights issue to back a programme of investments and restructuring designed to strengthen the group further after cutting losses sharply in

The company, formed in late 1992 from a merger of Avesta with the stainless steel interests of British Steel, said losses after financial items were reduced to SKr98m (\$12.48m) last year from SKr574m in 1992. Sales were up 20 per cent to SKr14.2bn.

lt said the improvement came in spite of generally

weak demand, especially for its cold rolled products, but rolled steel plate and tubes.

The reduced losses were attributed chiefly to merger synergies, the fall in value of the Swedish and British currencies and reduced employers contributions and energy taxes

No dividend will be paid, as

was the case last year. In January the company secured a five-year syndicated bank loan of \$268.75m. The new financing will bolster Avesta Sheffield - 40 per cent owned by British Steel - as it implements a SKr600m investment and restructuring plan.

provision for which was made

The plans include invest-

in the 1993 accounts.

ment in a new continuous plate production plant in the US and the upgrading of melting shops in Sheffield and

A melting shop in Degerfors in Sweden is to be closed

Avesta Sheffield said overcapacity in Europe continued to depress short and mediumterm prospects for stainless steel, but stronger demand in the Far East and the US supported a forecast of long-term growth in consumption of 4-5 per cent a year.

The company's investment and restructuring plan should give a quick return by increasing productivity, reducing lead times and improving costs, it

# BTR plc

has acquired

### **Rexnord Corporation**

The undersigned acted as financial advisor to

Dillon, Read & Co. Inc.

February 1994

#### Chairman of LSE makes pitch for Chinese custom

By Tony Walker in Beijing

A strong pitch for Chinese companies to choose London when seeking an overseas listing was made yesterday by Sir Andrew Hugh Smith, chairman of the London Stock Exchange.

Opening an investment semi-nar in Beijing, he told bankers, securities managers and stock regulators that the London market bad the breadth of experience and liquidity to benefit Chinese companies seeking overseas capital.

"Companies raise more money if they issue shares on a market like London's, where there is much investor interest and liquidity," said Sir

The invisibles seminar, organised by the China-Britain Trade Group, was partly aimed at countering a trend among Chinese companies to look first at Hong Kong and New York when considering an overseas

Some six mainland companies have listed in Hong Kong in the past year or so, and one of these - Shanghai Petro chemical - secured a joint listing in New York.

Another 22 Chinese compa nies, including a number from the power sector, are under consideration for overseas listings. Several have indicated an interest in floating their shares in London.

Sir Andrew, who will sign a memorandum of understand-ing with the Shanghai stock exchange to facilitate co-operation in trading and listing, said the London exchange would rationalise listing requirements to eliminate differences.

Seminar organisers said there was a good response from Chinese participants who indicated they had not been aware of the extent of business on the London market where some 200 new companies sought listings last year, raising \$38bn in equity capital.

#### Sotheby's well up at \$20.6m in final quarter

By Richard Tomkins

Sotheby's Holdings, the parent company of Sotheby's New York-based anction, finance and real estate operations. lifted net income to \$20.6m in the fourth quarter of 1993 from \$11.6m a year earlier on turn-over of \$103.7m, against \$84.5m. Net earnings per share rose to 36 cents a share from 21

For the full year, net income rose to \$19.3m from \$4m on turnover of \$252.3m against \$225m. Net earnings rose to 35 cents a share from 7 cents.

increased by 17 per cent to \$1.3bn. Auction operating revenues rose by \$34.1m to \$235m and auction income hefore taxes jumped to \$34.2m from

It sold about 163,000 lots in 1993, up 19 per cent from the previous year's 137,000.

### BTR Dunlop Holdings, Inc.

has purchased through tender

\$157,415,000

principal amount of

. 1034% Senior Notes due 2002

of

### **Rexnord Corporation**

The undersigned acted as dealer manager for BTR Dunlop Holdings, Inc. in this transaction.

Dillon, Read & Co. Inc.

February 1994

#### NOTICE OF REDEMPTION

#### MORTGAGE FUNDING CORPORATION NO. 1 PLC Class A-1 Mortgage Backed Floating Rate Notes Due March 2020

NOTICE IS HEREBY GIVEN to Bankers Trustee Company Limited (the "Trustee") and to the holders of the Class A-1 Mortgage Backed Floating Rate Notes Due March 2020 (the "Class A-1 Notes") of Mortgage Funding Corporation No. 112.C (the "Issuer") that, pursuant to the Trust Deeddated 31st March, 1988 (the "Trust Deed"), between Corporation No. 11 LC (the "issuer") that, pursuant to the I rust Deed cated 31 at March, 1988 (the "Agency Agreement"), between the Issuer and the Trustee, and the Agency Agreement dated 31 at March, 1988 (the "Agency Agreement"), between the Issuer and Morgan Guaranty Trust Company of New York (the "Principal Paying Agent") and others, the Issuer has determined that in accordance with the redemption provisions set out in the Terms and Conditions of the Class A-1 Notes, Available Capital Funds as defined in the Terms and Conditions in the amount of £1,500,000 will bentifized on 31 at March, 1994 (the "Redemption Date") to redeem a like amount of Class A-1 Notes. The Class A-1 Notes selected by drawing in lots of £100,000 for redemption on the Redemption Dateata redemption price (the "Redemption Price") equal to their principal amount, together with accrued interest thereon are as follows:

OUTSTANDING CLASS A-1 NOTES OF £100,000 EACH BEARING THE DISTINCTIVE SERIAL NUMBERS SET OUT BELOW Bearer Notes

697 1512 562 1505 1370 The Class A-1 Notes may be surrendered for redemption at the specified office of any of the Paying Agents,

Morgan Cuaranty Trust Company of New York PO Box 161, 60 Victoria Embankment Lundon EC4Y 0JP

Morgan Guaranty Trust Company of New York Avenue des Arts 35, B - 1040 Brussels

Morgan Guaranty Trust Company of New York 55 Exchange Place, Basement A New York, New York 10260-0023

Aug: Corporate Trust Operations 1-2011 Luxembourg In respect of Bearer Class A-1 Notes, the Redemption Price will be paid upon presentation and surrender, on nr after the Redemption Date, of such Notes together with all unmatured coupons and talons appertaining thereto. Such payment will be made (i) in sterling at the specified office of the Paying Agent in London or (ii) at the specified office of any Paying Agent listed above by sterling cheque drawn on, or at the option of the holder by transfer to a sterling account maintained by the payee with, a Town Clearing branch of a bank in London. On or after the Redemption Date interest shall cease to accrue on the Class A-1 Notes which are the subject of this

Notice of Redemption. MORTGAGE FUNDING CORPORATION NO. 1 PLC

By: Morgan Cuaranty Trust Company

Union de Banques Suisses (Luxembaurg) S.A.

as Principal l'aying Agent Dated: Joil March, 1994

36-38 Grand rue

Withholding of 31% of gross redemption proceeds of any payment made within the United States is required by the Internal Revenue Code of 1986 and amended by the Energy Policy Act of 1992 unless the paying agency has the correct taxpayer identification number (social security or employer identification number) or exemption certificate of the Payee. Please furnish a properly completed Form W-9 or exemption certificate or equivalent if presenting your Class A-1 Notes to the paying agency's New York Office.

Food of Richard (1998) | The state of the

### Earnings at Générale de Banque up 8% for year

By Gillian Tett in Brussels

Consolidated profits at Générale de Banque, Belgium's largest bank, rose by 6 per cent last year to BFr11.6bn (\$333m), up from BFr10.7bn in the previ-

ous 12 months. Mr Ferdinand Chaffart, chief executive, yesterday claimed that all the branches of the bank's activities had contributed to the growth, which was broadly in line with market

However, he noted that the bank had benefited in particular from falling interest rates which had boosted financial markets and stock exchanges. In spite of an overall drop in loans, private sector lending rose by 4.5 per cent last year. Meanwhile, gross income had risen by 14 per cent as a result of an expansion of the group's investment funds and foreign exchange activities, coupled with the realisation of capital gains on government bonds and the bank's recent sale of its stake in ABN-Amro, Mr Chaffart added.

The board of directors has proposed an increase in net dividend to BFr340 from BFr320. With the bank hoping to benefit further from a weak D-Mark, in spite of uncertain ties about the scope for further German rate cuts, Mr Chaffart sald he remained "optimistic" about the prospects for further growth next year.

#### **Finmeccanica** reduces holding By Sara Webb

Finmeccanica, the Italian state-controlled engineering group, is further reducing its stake in its quoted Ansaldo Trasporti subsidiary, in a transaction expected to raise up to L72bn (\$43m).

Lehman Brothers and Paribas Capital Markets were appointed joint lead managers yesterday for the placement of 10.6m ordinary shares in Ansaldo Trasporti with international investors. Finmeccanica's stake will fall to 50.1 per cent from 63.6 per cent.

# The world's most profitable software company is to refocus on global marketing, writes Alan Cane

Microsoft regroups to get closer to its customers Mr Bill Gates, co-founder and chairman of Microsoft, the sales, marketing and operations. We cannot just folused by 90 per cent of the Microsoft world's 100m personal comput-Share price (\$)

world's largest personal com-puter software company, has nightmares in which his competitors outsmart and overwhelm him in his bid to dominate the software business in the home and office.

That fear must have played s part in the decision, announced in the US last night, to reorganise Microsoft from top to bottom.

A memorandum to employ-ees signed by Mr Gates, Mr Steve Ballmer and Mr Mike Maples, who collectively make up Microsoft's "office of the president" spells out the worry: "We are trying to reach new customers and partners. Competitors like Lotus, Novell and Riectronic Arts are more

To continue to be a leader we need to innovate not only low and react to what others are doing."

Lotus Development Corporation developed the best selling spreadsheet 1-2-3 and market leading software for workgroups "Notes". Novell markets the most popular PC networking software.

What is striking about Microsoft's decision to reorganise is that, unlike other companies forced to restructure because of falling sales or trading losses, it remains the world's most profitable software com-In 1993 it reported net

ling \$3.75m. Its success is based on a broad range of market leading

software packages, but espe-cially on MS/DOS and Win-

income of \$953m on sales total-

Microsoft says that if it is to continue growing, it needs a fast, responsive organisation focusing on the customer's Among the changes called

for in the plan are: Microsoft's core technologies must be shared across the company to achieve economies of scale and offer customers greater consistency.

strategy has to be simplified. The memorandum says: "We are overloading the market with lots of complex messages. We need to develop clear themes that pull together what we say about our products."
This is taken to be a refer-

The company's product

codenamed Daytona and Cairo. Products are to be grouped in seven divisions: personal ence to confusion in the

May 1993

advanced Windows N/T operat-

ing system and its derivatives

13 tīmes most analysts' axpec-

tations of earnings this year,

considerably lower than other

Morgan Stanley, estimates

Mr Michael Blumstein, of

companies in the sector.

cations, desktop applications, consumer applications, soft-ware developer systems, advanced consumer technology and on-line services.

• Sales activities will be grouped into three customer units to give greater customer focus: "We will align all worldwide sales and marketing peo-ple with one of three customer types: end users, organisations, or other equipment manufac-turers. People within these customer units will live, eat and breathe with their customers, the memorandum says.

· A renewed focus on the competition: "We must understand not only competitors' products but also their sales strategies, marketing strategles, localisation strategies and so on. We must be aggressive in taking legitimate competi-

The memorandum goes on to

decisions faster and be more efficient in marketing, sales and support "It must be clear that it is better to take action, make mistakes and be forgiven than to wait and ask for per-

The memorandum makes clear the company is planning on a global basis.

In the past, product market-ing groups were focused primarily on the US market and subsidiaries had to develop their own marketing pro-

"In the future we will create global marketing programmes that can be efficiently deployed in local geographies."

The company denied that subsidiaries would become less independent, arguing that it would collect information from ite subsidiaries in developing

its existing managere – although under the wing of GE Capital.

sbare values the group's

outstanding ordinary shares

at \$1.8bn, and would be worth

\$2.2bn after taking into

account convertible preferred

hile leaning heavily on Kemper's board before it meets this

contested

Thursday, GE seems unwilling

at this stage to launch an

Such an attack would be

extremely rare in the financial services husiness. An

unwanted deal would run the

risk of driving away Kemper's

best people.

It would also have to win the backing of state insur-

ance regulators. In addition,

mutual fund groups have a

powerful poison plil at their

disposal: the boards of each

fund run by the group could vote to have their assets man-

If that were to happen, a con-

aged by another company.

stock and stock options.

all-out

The all-cash hid of \$55 a

### Fannie Mae in scheme for low-income borrowers

By Patrick Harverson

Federal National Mortgage Association (Famile Mae) yesterday launched an initiative to provide \$1,000hn in mortgage financing over the next seven years to help low-income families in the US buy

their own bomes. The initiative comprises a series of programmes to pro-vide more information to potential homebuyers, making it easier for low-income or disadvantaged families to win approval for a mortgage loan, and ending racial discrimination in the lending pro-

By the end of the decade. Fannie Mae hopes to have pro-vided \$1,000hm in financing to mortgage providers, and helped lom families bny

The company is the largest provider of mortgages in the US. It does not sell mortgages directly to bomebuyers, but rather invests in mortgages sold by mortgage companies, savings and loan institutions and banks.

Fannie Mae said it would direct the programmes at low and moderate-income families, minority groups, new lumi-grants to the US, people living In inner-city areas or neglected communities, and people with special bousing

#### Newsprint group halves its deficit

By Robert Gibbens

Stone-Consolidated, the newsprint arm of Chicago's Stone Container, halved its losses in 1993. It said prices in the US were improving and

The 1993 loss was C\$68.7m (US\$51.2m) down from C\$110m in 1992 on sales of C\$928m, up 10.4 per cent. Paper shipments were 1.3m tonnes, np from 1.25m. The company said costs had been reduced and strong timber prices and a lower Canadian dollar had helped.

### marketplace over Microsoft's Mutual fund takeover bid lights up Wall Street

Richard Waters examines the implications of the uninvited offer from GE Capital for Kemper

he prospect of a second blg takeover in the mutual fund business in the US in a matter of months lit up Wall Street yesterday. Shares in Kemper, the Chiago-based asset management, life insurance and broking company, leapt by 50 per cent, or \$20%, from Monday's close on an uninvited bid from GE

The sharp move pushed Kemper's market value up to nearly \$2.5bm, above GE Capital's offer valued at \$2.2bn. It signalled Wall Street's belief that either the General Electric subsidiary would have to offer more or the approach would prompt a rare hidding war for the financial services company.

The bid approach from GE Capital follows Mellon Bank's \$1.8hn acquisition of Dreyfus, which marked the most aggressive move yet by a US commercial bank to enter the booming funds business. The share prices of other mutual fund groups also jumped yesterday, on expectations of further deals. Franklin Resources, for instance, rose \$11/4, to \$48%. GE's approach came in a let-

ter from Mr Jack Welch, chair-

man of the US group, to Mr David Mathis, his opposite number at Kemper. Although written on March 2, it was only made public by GE yesterday in an apparent move to put pressure on Kemper's board to accept the deal.

It could also be designed to force a decision hefore any rival suitor has a chance to make a move. The market has been rife with rumours of an approach for Kemper since the Dreyfus deal.

Banco Santander, the Spanish bank which took a 3 per cent stake in Kemper in the late-1980s, is one name frequently mentioned - although its potential involvement in a rescue bid for domestic rival Banesto could give its management more than enough to think about in the months Other US domestic banks,

seeking to emulate Mellon, are also seen as possible bidders. GE's approach has caught Kemper's management in an unenviable position. The company is only just emerging from a period overshadowed by problem real estate invest-

US MUTUAL FUND GROUPS Assets (and 1993) Fidelity Vanguard Merrill Lynch Capital Resear Frankfin/Templetor TIAA-CREE Smith Barney Shearson

Last year, Kemper sold off its reinsurance operations, and earlier this year completed its

exit from the property/casualty

T Rowe Price

in the view of several analysts, it could be on the verge of a rebound in earnings although its stock price before GE's approach became public ned not to reflect this. At around \$40, the shares

earnings this year of \$3.75 a share, rising to \$4.40 in 1995 — a view echoed in a recent research note from Allen Nadler at Merrill Lynch. Ironically, it was the disposal of the reinsurance business which first left Kemper vulnerable to a bid. The sale involved the cancel-

lation of most of the 38 per cent stake in Kemper owned by the Lumbermen's Mutual Casualty Company, wiping out potentially supportive hold-It is not surprising that

Kemper's management team, having dealt with the problems of the early-1990s, have not welcomed GE's bid. "They hate the fact that someone else will come in and take the credit [for their efforts]," said one person close to the company. Kemper's business now com-

prises three parts: a mutual fund business, with \$44bn under management; a life assurance operation specialisearlier this week were trading on a multiple of around 12 to

enough hid.

For GE Capital, a Kemper acquisition would provide a springboard into the fastestgrowing areas of the US The share prices

ing in annuity business; and a

regional securities brokerage. The company abandoned efforts to sell its underperform-

ing securities arm last year,

after it falled to attract a high

of other mutual funds groups also jumped

retail investment business mutual funds and variable annuities.

Kemper has \$70km in all together with GE's \$75bn would create one of the US's biggest fund management

In a clear attempt to win the backing of Kemper's management, Mr Welch in his letter dangled the carrot of a consolidation of all the asset management activities under the Kemper umbrella, run by

tested GE takeover would become a hollow victory, Adjustment of Subscription Price

Nakano Corporation (the "Company")

Bearer Warrants to subscribe for shares of common stock of the Company (the "Shares") issued with U.S.\$75,000,000

314 per cent. Guaranteed Notes 1996

3/4 Per Cent. Cruatanteed 1 Notes 1270
Notice is hereby given that the Company has resolved at the meeting of the Board of Directors held on 4th March, 1994 to split the Shares (the "Stock Split") owned by the shareholders appearing on the closing register of shareholders of the Company as at 31st March, 1994 (Japan time) at the rate of one point one (1.1) Shares to one (1) Share held by them; provided, however, that the fractions of a full Share occurring upon such Stock Split shall be sold as a whole and the proceeds of the rate dail he distributed to the shareholders entitled thereto in proportion rale shall be distributed to the shareholders entitled ther to their fractional innetests, and as a result of such Stock Split the Subscription Price for the captioned Warrants shall be adju 1. Subscription Price before adjustment: -¥923.00 per Share ¥839.10 per Share 3. Effective dans of above admissment:

Ist April, 1994 (Japan time) Nakano Corporation 2-28, Kudan-Kita 4-chome.

Chiyoda-ku, Tokyo By: The Missuhishi Trust and Banking Corporation as Principal Paying Agent

Dared: 16th March, 1994

#### NOTICE OF EARLY REDEMPTION APASCO Apasco, S.A. de C.V. US\$50,000,000 9% per cent. Subs

accordance with Conditions 9(b) and 7(a) of the Terms and Conditions of the abentures, notice is hereby given that (terms defined in such Terms and malitions shall have the same meanings when used herein):

The Official Closing Price of the Series A Variable Shares of the Company on at least 35 of the 50 consecutive dealing days ending an March 9, 1994 was at least 175 per cent of the Conversion Price in effect an each such dealing day:

was of least 175 per cent of the Conversion Price in effect an each such dealing day;

accordingly, the Company is entitled to recleem the Debentures in occordance with Condition 9(b);

the Debentures will be redeemed on the Interest Poyment Date falling on Moy 15, 1994 at a price of US\$11,574.40 for each Debenture, logether with accorded interest. For the purposes of such redemption, each Bearer Debenture, together with a functional Coupans appendicining thereto, and each Registered Debenture Certificate must be presented and surrandered of the offices of any of the Poying and Conversion Agents specified in such Bearer Debenture or, as the case may be, Registered Debenture Certificate in accordance with such Terms and Conditions; and (d) for purposes of the exercise of the Conversion Rights officiated to the Debentures in accordance with such Terms and Conditions; and (d) for purposes of the exercise of the Conversion Rights officiated to the Debentures in accordance with Condition 7, such Conversion Rights shall terminate at the dose of business on May 7, 1994.

March 16, 1994, London

By: Casbank, N.A. as Principal Paying and Cor on behalf of Apasco, S.A. de C.V. CITIBANCO

#### **Temple Court**

Mortgages (No. 2) PLC Multi-Class Mortgage Backed Floating Rate Notes 2031

Class A1 £75,000,000 Class A2 £75,000,000 The rare of interest for the period 14th March, 1994 to 14th June, 1994 has been fixed as follows:-Class A2 is 5.7375 per cent. per annum payable at £144.62

per coupon.

Coupon No. 13 is payable on 14th June, 1994.

Class A2 aggregate principle amount of Notes outstanding as at 14th March, 1994: £65,160,000.

S.G.Warburg & Co. Ltd. Agent Bank 

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it's a growing economy, but an unknown market can be just as difficult as

the roughest sea, especially in these uncertain times. The Fuii Bank, with 9 offices and 6 subsidiaries in Europe, is here to help you navigate the Asian market, in all areas of financial management.

What's more, with 28 offices, subsidiaries and affiliates in Asia and Occania, as well as 366 offices throughout Japan, we're also there to help you minimize the risks and maximize the opportunities.

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Puji Panti (alineata) de l'Alia (Sempe & derivatives) 184 - 14-71-623-263 fax: 44-71-623-2388 Puji loremational Finance PLC (Investment banking) 184 - 14-71-256-8883 fax: 44-71-538-2023

rit in Ania and Geomain: McKenzme, Sydney, Shernshen, Beging, Dalum, Hazangshon, Shanghar, Hong Kong, Ken Dritn, Lukaria. Sentel, Latezno, Kuzik Lapezno, Marika, Sovaporr, Barophak, Ho Chi Mesh

TOMOKU CO., LTD. (the "Company")

issued in conjunction with

Notice to the Holders of the Warrants

U.S. \$70,000,000

2% per cent. Guaranteed Notes due 1996 (the "Warrants")

ADJUSTMENT OF SUBSCRIPTION PRICE NOTICE IS HEREBY GIVEN pursuant to Condition 7 of the Terms and Conditions of the Warrants in relation to the Warrants, that the Board of Directors of the Company passed a resolution on 21st February, 1994 (Japan Time) to make a stock split of shares of its common stock in the form of a free share distribution effective as of 20th May, 1994 to the shareholders of record on 31st March, 1994 (Japan Time) in the ratio of 0.15 new share for each one share held by them.

As a result of such stock split, the Subscription Price at which shares are issuable upon exercise of the Warrants will be adjusted as follows:

> Before adjustment: Y544.40 per share After adjustment: ¥473.40 per share

Such adjustment to the Subscription Price shall be effective as of 1st April, 1994 (Japan Time). IBJ Schroder Bank & Trust Company

on behalf of: Tomoku Co., Ltd.

Dated: 16th March, 1994.

BRADFORD &BINGLEY £200,000,000

Rosting Rate Notes due 1995 in escordance with the terms and conditions of the Notes, the Interest rate for the period 15th March, 1994 to 15th June, 1994 has been foted at 3.3125% per annum. The interest payeble on 15th June, 1994 against the Coupon 12 will be \$133.90 per £10.000 nominel. Agent Benk ROYAL BANK OF CANADA

U.S. \$200,000,000

MARINE MIDLAND

Rosting Rate Subordinated Notes Due 2000

CS FIRST BOSTON

ALIEPSON.

5%% p.s.

1825 June 1984

6.23437 per cent. per annum with a Coupon amount of FF 159.32 per FF 10,000 Bond and FF 1,593.23 per FF 100,000 Bond. The relevant Interest Payment Date will be 15th June, 1994. Bankers Treat Company, London

> £5,500,000 102 PLC

CNT Caisse Nationale des Télécommunications

FF 2,000,000,000

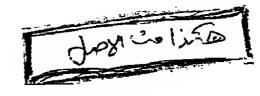
Floating Rate Bonds

due 1997

Notice is hereby given that for the Interest Period 15th March, 1994 to 15th June, 1994 the Bonds will carry a Rate of Interest of

Class B
Mortigage Sactod Floeting Rate
Notes due Merch 2021
For the Interest Period from
Merch 14, 1994 the Note Rate has been determined at
Louis To Jan Salant 14, 1994 the
symbol on the relevant Interest
psymbol on the relevant Interest
psymbol data, June 14, 1994 will
be \$1,534.38 per \$100,000 nominal
amount. By: The Chart Manimizer Bank, N.A. London, Agent Stank March 16, 1994

HMC MORTGAGE ASSETS



FINANCIAL TIMES WEDNESDAY MARCH 16 1994

Fannie Ve

in solution

low-income

tourrow<sub>ek</sub>

Risk. It isn't always where you expect it to be.

Some risks are clearly visible. Others hide from sight.

The unexpected is the one thing you can always expect.

Suppose that overseas political upheaval thins out the flow of a raw material you can't do without. That's a risk Bankers Trust can help you contain.

Or suppose a natural disaster cripples your payments system. Again, with our merchant banking help, that risk can be dealt with.

Like every financial institution, we trade,

arrange financing, close deals. But everything we do is done with an eye to helping you profit from risk.

Our greatest strength is putting all our skills to work at managing every kind of global risk.

Life can never be risk-free. Leadership isn't built on sure things. But with Bankers Trust behind you, you'll be leading from unparalleled strength.

#### US \$400,000,000 UNDATED FLOATING RATE PRIMARY CAPITAL NOTES

In accordance with the Terms and Conditions of the Notes, notice is hereby given that for the Interest Period from 16th March 1994, to 16th September 1994, the Notes will bear e Rate of Interest of 7.43286 per cent. per annum.

AGENT BANK: CHARTERHOUSE BANK LIMITED A Member of The Securities and Futures Authority



U.S. \$400,000,000



Santander Financial Issuances Limited

Subordinated Undated Variable Rate Notes with payment of interest subject to the profits of and secured by a subordinated deposit with Banco Santander, S.A.

(Incorporated in Spain with Imited (Inability)

Notice is hereby given, that for the Interest Period from March 16, 1994 to June 16, 1994 the Notes will carry an Interest Pate of 4.825% per amurn. The amount of interest payable on June 16, 1994 will be U.S. \$2,964.86 per U.S. \$250,000

By: The Chase Manhattan Bank, N.A. London, Agent Bank





Notice to the Holders of

Yasuda Trust Asia Pacific Limited

U.S. \$50,000,000 Floating/Fixed Rate Guaranteed Bonds Due 2002

guaranteed by The Yasuda Trust and Banking Company, Limited

NOTICE IS HEREBY GIVEN, pursuant to the Conditions, that the Company intends to redeem all, but not some only of the Bonds, at their principal amount on 22nd April, 1994, nursuant to Condition 5(b) of the Bonds.

(the "Guarantor

Yasuda Bank and Trust Company (U.S.A.)
On behalf of the Company

#### The Bear Stearns Companies Inc

U.S. \$200,000,000

Floating Rate Notes due 1994

For the three month period 15th March, 1994 to 15th June, 1994 the Notes will carry an interest rare of 4%% per annum with an Interest amount of U.S. \$103.82 per U.S. \$10,000 Note payable on

Bankers Trust Company, London

Agent Bank

#### 1993 RESULTS NOTICE IS HEREBY GIVEN OF THE ANNUAL GENERAL MEETING OF SHAREHOLOERS

At a meeting on the 11th of March 1994, the Board of Directors of

**BONGRAIN** 

secures its positions

BONGRAIN S.A. approved the 1993 annual accounts. In difficult economic circumstances BONGRAIN maintained its operating income performance without reducing investments for the long term. In fact two acquisitions were made, in the Czech Republic and in Huneary.

The BRESSOR ALLIANCE and the BRESSE FINANCES companies have been fully consolidated. COLOMBO Inc.'s activity has been included up to the 17th of December 1993, when it was sold to GENERAL MILLS.

LA COMPAGNIE LAITIERE EUROPEENNE's activity has not

Net consolidated sales represent F.Fr. 9.59 bn compared to F.Fr. 9.71 bn in 1992.

The improvement in net operating income, F.Fr. 593 m, results from the strong mobilisation of all personnel together with expense reduction measures initiated throughout the Group towards the end

The extraordinary items of F.Fr. 145 m are heavily influenced by the gain on the divestment of COLOMBO Inc.

In millions of French Francs	1993	1992	% change				
Net sales	9 591	9706	- 1.2				
Value added	2 836	2806	+ 1.1				
Gross operating income	1000	953	+ 4.9				
Depreciation and operating provisions	407	367	+ 10.9				
Net operating income	+ 593	+ 586	+ 1.2				
Earnings before extraordinary items	+ 596	+ 592	+ 0.7				
Extraordinary items	+ 145	+ 8	-				
Earnings after tax	+ 479	+ 357	+ 34.3				
Net earnings excluding minority interests	+434	+ 354	+ 22.5				
Net earnings per share	225.6 F	1843 F	+ 22.4				

#### Capital expenditures amounted to F.Fr. 290.7 m.

The year ended with positive net cash and short term investments of F.Fr. 592.7 m, compared to not debt of F.Fr. 301.3 m at end 1992. The Board of Directors has decided to purchase, from the BONGRAIN family, all of the shares not as yet owned by BONGRAIN S.A., in ZAUSNER FOODS Corp. the holding company for the Group's North American activities.

At the shareholders' Annual General Meeting, to be held on the 29th of April at BONORAIN's registered office, the Board of Directors will recommend a net dividend per share of 61 Francs.

### INTERNATIONAL COMPANIES AND FINANCE

### Chinese group powers on with HK float

Simon Holberton visits Dongfang, a leading maker of power generation equipment

Yuan20,1m

Hydro turbine

t takes nearly two and a half hours to travel the 59 kilometres from Chengdu, the provincial capital of Sichuan in China's south-west, to Deyang, the home of Dongfang

Electrical Machinery.
Through a landscape undergoing a familiar transformation from agriculture to industry, the journey is enlivened by the anarchic quality of motoring in modern China. But it is one which the managers of Donglang, China'a third largest maker of power generation equipment, hope will not deter investors.

The company expects to be floated on the Hong Kong stock exchange next month -the eighth of the first nine companies which the Chinese government nominated last year for listing outside China with an issue of about 125m "H" shares.

Nomura, the Japanese securities house which is the lead manager, estimates that this offering to foreign investors, which is equal to 25 per cent of Dongfang's capital, will raise about HK\$350m (US\$45m). A slightly smaller percentage of the company will be issued in the form of "A" shares to mainland Chinese investors and listed on the Shanghai stock exchange.

By Christopher Brown-Humes

Three leading Finnish banks,

struggling to recover from the

country's finaucial crisis,

warned yesterday that they

faced further big credit losses after the Haka construction

Unitas, the country's second

largest banking group, said the

collapse could produce write-offs of up to FM450m, but it

stressed that this did not alter

its forecast of a substantially

reduced deficit in 1994. It said

amounted to around FM1.2bn.

its total exposure to Haka

Kansailis-Osake-Pankki, Fin-

land's largest bank, aaid It

would suffer a loss of no more

group filed for bankruptcy.

Moreover, if China is to sustain economic growth rates of around 10 per cent a year It In the Hong Kong stock brodesperately needs more electric power plants. On current trends, demand for electric ker jargon, Dongfang is an "infrastructure play", a "war-rant" on the fast-growing Chipower is set to double between

Dongfang Electrical

nese economy. The company appears well positioned. According to Dongfang, it has

e 40 per cent share of the Chi-

nese market for hydroelectric

power generating equipment and a 25 per cent share of the country's steam turbine gener-

per cent of the Chinese power

which still has plenty of room to mature. Electrification

touches only 67 per cent of households in China, compared

with 80 per cent in Thailand

Banks warn of Haka exposure

than FM200m from the bank-

ruptcy. It added that the

amount would be covered by a

FM900m provision, taken last

year, for unidentified bad

loans. Its claims on Haka com-

A third bank, Postipankki,

estimated potential credit

losses at FM300m, although its

total exposure amounts to just

over FM800m. It said the nomi-

nal value of its collateral was

"The final credit and guaran-

tee losses are dependent upon

both the successful liquidation

of the collateral as well as the

orderly completion of on-going projects," Postipankki stated.

· Rantarunkki, the Finnish

state-controlled steel group,

panies total FM815m.

more than FM750m.

and 82 per cent in India.

AC and DC

Yuan27.6m

Steam turbine

Yuan105.8m

now and 2000. According to Mr Jacky Chiu, an analyst at Nomura Research Institute. this means adding an extra 20,000MW of generating each year. But the gap between China's need and its capacity to meet that need is large. The production capacity of the Overall it has a share of 30 three mainland manufacturers is only 10.000MW to 12.000MW engineering market - a market

"As the Chinese government has designated that most of the annual requirement for power generation capacity should be satisfied locally, local manufacturers have to increase substantially both production capacity and technological levels in the next few years," Mr Chiu wrote recently

Underlining the need for rapid development of the power industry is the decision

yesterday unveiled a FM144m (\$26m) profit aftar financial

items for 1993, a sharp turn-round on the FM697m loss

reported for the previous year.

It benefited from firmer steel

prices, cost-cutting and the weaker Finnish markka. But

the result was held back by

high financing costs, lower

demand in western Europe,

and continued losses at the

company's Transtech rolling

stock unit. The group said it

would not pay a dividend for

Operating profits after depre-

ciation were FM829m, or 11.8 per cent of sales of FM7.01bn.

This compares with profits of

FM454m on turnover of

the third consecutive year.

offer foreign investors stakes in other power companies. Recently 22 companies were nominated for foreign (mostly Hong Kong) listings and among them is Harbin Power Plant Equipment Group, Chi-na's biggest manufacturer of power generating equipment, as well as four power supply

of the Chinese government to

Dongfang's managers say that increasing productive capacity and raising the com pany'a technological sophistication are the main benefits they see coming from the list-

ing in Hong Kong.
According to Mr Chen Weijian, general manager, Dongfang plans to invest Yn920m (\$105m) over the next three years in increasing the cepacity of Dongfang's Of this, the lion's share

(Yn670m) will go to upgrade its technology in hydro power production. By 1997 it wants to crease production capacity of its hydro generators to 1,600MW from 600MW. A smaller amount (Yn250m) will be allocated to increase the production of steam turbine generators with capacities of 300MW and 600MW.

Dongfang needs an infusion of capital for expansion. Its order book is full until the end of 1996. Not only that but by that time China'e biggest hydroelectric development -

Minebea of Japan and FAG

Kugelfischer of Germany,

the two ball bearing manufac-

turers recently hit by heavy

losses, are to supply each other

with bearings in order to

reduce their investment and

By Victor Mallet

production costs.

the Yangtze river - is expected to be well under way.

When completed the Three Gorges will be the world'e largest lake and hydroelectric power system. In its first phase the project will consist of 26 700WM units. Although Dongfang will be just one of the suppliers to the project com-pany executives expect the Three Gorges to underwrite its future for many years to come.

n pursuit of technology. the company is exploring joint venture possibilities with European and North American power generation equipment manufacturers. Dongfang is holding preliminary discussions with GE Canada about a joint venture in hydroelectric power, and it recently signed a draft memorandum of understanding with

This gives the German manufecturer 51 per cent of e eteam turbine assembly and test factory. Siemens will put up DM26m for its share of the business while Dongfang will provide the land and erect the factory. Executives expect the joint venture to be operational

As Mr Rao Fangquan, a deputy general manager, observed: "The most important aspect of a joint venture is not the capital but the technology, so our

**Ball bearing makers** 

agree supply deals

### NKK to cut • 1,300 more jobs in restructure

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43

By Michiyo Nakamoto

NKK, the Japanese steel company, plans a wide-ranging restructuring aimed at reducing employees by a further 1,300 and increasing profits by Y175bu (\$1.65bn) the next three OVET

The company, which faces heavy losses this year, says reatructuring intended to return the company to profit so that it can resume dividends by

Earlier this month, the company revised its earnings esti-mate for the year ending this month and said that it expects pre-tax losses

The company is being forced to pass its dividend for the first time since it was stock market listed

Mr Shunkichi Miyoshi, president, said NKK aimed to increase its ratio of profits to sales in the engineering division to 5 per cent from the current 3 per cent.
Under the plan, NKK will cut capital spending to a third

of levels seen over the past three years, or about Y140bm

Steelmaking operations will be streamlined by reducing the product range, integrating production of some products at one plant and shifting production of other products to an affiliated electric furnace steel The latest plan brings the

total number of employee cuts to 4,500. Last year, NKK said it would reduce employee numbers by 3,200 by fiscal

Reductions would be achieved through transfers to subsidiaries, cuts in graduate employees and natural attri-

NKK expects to continue its operations in electronics and property development which are two areas the company has been working in. It also hopes to increase its

involvement in south-east Asia where it is considering local production of steel or joint ventures depending on the needs of each particular coun-

expected to affect National Steel, the US company in which NKK has a 50 per cent equity stake.

National Steel itself is beginning to enjoy the fruits of its own restructuring, Mr Miyoshi said, and NKK hopes to support the running of National Steel by Its US management

### Santos nearly doubles earnings

By Nikki Tait in Sydney

Santos, the Adelaide-based oil and gas company, reports a near doubling of after-tax profits to A\$219.3m (US\$157.5m) for 1993. In the previous year, profit after abnormals was A\$112.7m. In part, the charp improve-

ARENDO

thoughs fit, adopt the accounts pre

school by the Directors for the year

cuded 11st December 1993 and the

In approve the appointment of Price Waterhouse as Andriors and Juthor-

see the Directors to fir the Auditors'

By order of the Based of LiQUIRAER. Julia: Beer U.S. Dellar Fand Limited, P.O. Box 1100, Grand Cayman Caemen Islands.

A shareholder holding registered ares is entisled in attend, vote and np-

point one or more person to attend and one cavered of him. A provy need not be a thorehelder of the company. A shareholder holding bearer shares

s cutaled so ettend and vote, Escreise

of these rigins in respect only on presen-tation of the Meeting of the bearer cer-tificate or samilactory evidence of the holding. Such evaluate may be absumed by depositing the certificate with one of

occips, which must be produced as th

reports of the Directors and Auditors.

I. To receive and consider and, if

To ratify the acts of Directors.

ment was due to a turnround on abnormals. In 1993, Santos booked a net gain of A\$34.9m. reflecting e A\$46.6m surplus on the sale of the company's shares in Sagasco, which was taken over by Boral last year, a A\$44.1m gain from tax-related matters, and a A\$55.8m writedown of capitalisation explora-

Copies of the Annual Report in

ing Andred Accounts are smilable for

inspection and may be obtained at the registered office of the Company and

existence between the Company and on

fits Officetors and none are proposed.

Participating abares are listed on the

London Stock Firehange and particulars

l Service.

STERRYADO AND REGISTERS

Grand Cayman, Caymaa falanda

Hababatatrana (6, P.C), Bos

Bovis Marks I louse, Bovis Marks

9010 Zanch, Swigar-Land

London ECJA 7NE

Julius Baer Bank and Tirest Company Lad. Kirk House, P.O. Box 1100

AGANTS

United Kingdom Societé Bancaire Julius Baer Sel Genève

Botslevard du Théline 2, 20. Box

from the Agents listed below.

15th March, 1994

tion expenditure. In the previous year, there was a A\$49.9m. abnormal charge.

Santos also benefited from lower tax and interest charges, with the latter falling to A\$38.2m from A\$50.3m. Earnings before interest and tax in 1993 stood at A\$327.4m, marginally below 1992's A\$322.2m.

FM6.50bn a year earlier. swap technical knowbow.

> sion of the deal to obtain clearance under the European competition Uniou's

Executives from Minebea, which is particularly strong in Asia, and FAG, with its European base, said each company would continue to market products separately

said they

notify the European Commis-

Mr Goro Ogino, Minebea president, in a statement, "and both companies will be able to realise important cost savings at the capital investment and manufacturing Mr Peter-Juergen Kreher, chairman of FAG's manage-

"Each company will benefit from the manufacturing

strengths of the other," said

Under the agreements signed in Thailand, where ment board, said: "Today's Minebea has its largest factory ~ Minebea will supply FAG with miniature and small agreements represent a vital opportunity for us both to ball bearings, while FAG ensure our ability to deliver a wider range of ball bearing will supply Minebea with small and medium-sized bearproducts at the lowest possible ings.
The two companies will also

According to the deal, Minebea will supply bearings with 24mm, while FAG will supply those with diameters between 24 and 35mm.

Both companies have undergone extensive restructuring. Minebea's net loss was Y61.21bn (\$578m)in the year to September 30, 1993, while FAG reported a net loss of DM439m (\$360m) in

### BT Aipha PLC

to be renamed

Bankers Trust International PLC ant to Bankers Trust International PLC's ("BTT") plan to reorg

ire corporate structure under which a wholly-owned subsidiary, runted BT Alpha PLC, will require substantially all of BTI's users and business, notice is bereby given to the holders of the Warrants referred to below based by BTI that, in each case in accordance with the conditions of suc Warmins, with effect at close of business on 31 March, 1994, BT Alpha PLC, to be renamed Bankars Trust International PLC (the "New Campany") will be substituted as principal obligor under such Warrants in the place of BTI.

In relation to each such issue of Warrants, copies or pending execution agreed text of the Deed Bill pursuant in which such substitution will be effected, of the agreement pursuant to which the New Company will become party to the Warrant Agreement relating to such Warrants, and of ny other documents which might otherwise reasonably be regarded as asterial nothe relevant Wirmarcholders will be available for inspection at the specified office of each of the Warrant Agents. 2,000,000 Call Warrants related to the 2 per cent. Treasury Stock due to June 2003, issued on 30 September 1993 (Common Code: 4617541)

4,700,000 Warrants in relation to the Ordinary Shares of J Sainsbury ple expiring 30 January 1998, Issued on 17 February 1994 (Co. Code: 4884868) By: Bankers Trust International PLC

I Appoid Street, Brondgare 16 March, 1994

#### BT Alpha PLC

to be renamed

Bankers Trust International PLC Pursuant to Bankers Trust International PLC's ("BTI") plut to reorgani

Alpha PLC, will acquire substantially all of BTIs assets and business, notice is bereby given to the holders of the Notes referred to below issued by BTI that, in each case in accordance with the cauditions of such Notes. with effect at close of business on 31 March, 1994, BT Alpha PLC, to be renamed Bunkers Trust International PLC (the "New Company") will be substituted as principal obligor under such Notes in the place of BTI. In relation to each such issue of Notes, copies or pending execution, the agreed text of the Doed Poll pursuant to which such substitution will be effected, of the surrement pursuant to which the New Company will become purty to the Fiscal Agency Agreement relating to such Notes, and of any other documents which might otherwise reasonably be regarded as material to the relevant Notcholders will be available for inspection at the

ht. 156,000,000,000 Non Recourse CTO Linked Notes due 1998, assed on 20 December 1993 (Common Code: 4783573) £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 with 4,700,000 £20,000,000 Step down Coupon Notes due 2001 St

Italian Lire 30,000,000,000 3.55 per cent. S&P 500 Index Linked Notes due 3 January 1997, issued on 5 January 1994 (Common Code:

by: Bankers Trust International PLC l Appold Street, Brandgate London EC2A 211E 16 March, 1994

Bell Resources Financial Services N.V.

#### THE LATIN AMERICA INCOME AND APPRECIATION FUND N.V. DIVIDEND NOTICE

LIQUIBAER

JULIUS BAER U.S. OOLLAR FUNG LIMITED GRANG CAYMAN

umpony incurputated in the Cayman lalando with limited liability

to be held at Julius ager Bank and Trust Company L.Id.,

Kirk House, Grand Cayman, Cayman Islands, on the 5th day of April, 1994 at 10 a.m.

Consistent with the authorization granted by the Board of Supervisory Directors on March 11, 1994, notice is hereby given that the Fund's Managing Oirector had clased a distribution of U.S. \$0.50 pc; Class A Share and an equivalent amount on a yield basis for Class & Shares, payable on March 28, 1994 to common shareholders of record at the close of business on March 21, 1994, in the case of shares held in registered form, or upon presentation of coupon number 7 attached to the common share certificate to the Fund's Administrator (on or after March 23, 1994), in the case of common shares held in bearer form.

By Order of the Managing Director nistrator. Managing Director and Location of Principal Office MeesPierson Trust (Current) N.V.

John B. Gorsiwareg 6 Willemstad, Cursess Netherlands Antille

Soudder, Stevens & Clark, Inc.

#### Reminder Notice of **Bondholders Optional Redemption Rights** Bell Resources Financial Services N.V. U.S. \$200,000,000

5% per cent. Guaranteed Convertible Subordinated Bonds due 2002 Unconditionally guaranteed on a subordinated basis by,

with non-detachable subordinated conversion bonds (the "Conversion Bonds") issued by, and convertible into

Ordinary Shares of A\$0.50 each of. Australian Consolidated Investments Limited A.C.N. 008 670 924 (previously called Bell Resources Ltd.) In accordance with Condition 6(C) of the U.S. \$200,000,000 5% per

cent. Guaranteed Convertible Subordinated Bonds due 2002 (the "Bonds"), Bell Resources Financial Services N.V. (the "Issuer") reby gives notice that each Bond may, subject to the Conditions of the Bonds, be redeemed at the option of the holder on June 2, 1994 at 129.45 per cent. of its principal amount provided that all unmatured Coupons appertaining thereto are attached or surrendered

To exercise such option in respect of any Bond the holder must deposit such Bond (with the form of election of early redemption enfaced on such Bond duly completed) with any Paying Agent listed below not earlier than April 18, 1994 and not later than May 3, 1994. Any Bond so deposited may not be withdrawn without the prio consent of the Issuer.

Any holder who wishes to exercise his option under Condition 6(C)

should deposit his Bonds in the manner set out above.

On redemption of any Bond, the relative Conversion Bond attached thereto shall simultaneously be redeemed at the amount paid up thereon, being U.S. \$0.01 per U.S. \$1,000 principal amount of the

PRINCIPAL PAYING AND CONVERSION AGENT The Chase Manhattan Bank, N.A. Woolgate House, Coleman Street, London EC2P 2HD PAYING AND CONVERSION AGENTS Chase Manhattan Bank

Chase Manhattan Bank Luxembourg S.A. 5 Rue Plaetis L-2338 Luxembourg-Grund

63 Rue du Rhône CH-1204 Geneva Banque Bruxelles Lambert S.A. 24 Avenue Marnix, B-1050 Brussela

CHASE

THIS NOTICE IS IMPORTANT. IF BONDHOLDERS ARE IN ANY DOUBT AS TO THE ACTION THEY SHOULD TAKE THEY SHOULD CONSULT THEIR STOCKBROKER, LAWYER, ACCOUNTANT OR OTHER PROFESSIONAL ADVISER WITHOUT DELAY. The Chase Manhattan Bank, N.A.

March 16, 1994

for and on behalf of

DO YOU WANT TO KNOW A SECRET? The I.D.S. Gann Seminar will show you how the markets REALLY work. The amazing trading techniques of the legendary W.D. Garn can increase your profits and contain your losses. How? That's the secret. Pling 06: 474 0080 to book your FREE place.

# German rate hopes spur big gains across Europe Regulatory pact

By Conner Middelmann in London and Frank McGurty in New York

NK tog

European government bonds put on another strong performance yesterday, hoosted by hopes of a more rapid easing in German interest rates.

#### GOVERNMENT BONDS

Firmer US Treasuries lent added support, although they underperformed their European counterparts, Mr Ifty Íslam, an economist at Merrill Lynch said. The yield gap between the higher-yielding US 10-year benchmark and its German counterpart widened to 39 basia points, from 30 hasis points on Monday and 24 on

Retail activity remained sub-

dued, with investors awaiting today's allocation of the Bundesbank's securities repurchase agreements, UK retail sales and employment numbers, and US consumer price data.

However, some traders reported substantial buying of German, French and Dutch bonds by US hedge funds.

■ Hopes for accelerated Bundesbank easing gave German bunds a strong boost, with 10year maturities gaining more than a point. Looking to the Burdesbank's

repo allocation, most dealers are calling for a slightly larger drop in the minimum repo rate than the three-hasis-point declines of the last two weeks. "Given the current level of liquidity [in the money market] and the overnight money rate, the drop in the repo rate

Landesbank Girozentrale in Dusseldorf. Most traders are betting on a reduction of between five and seven basis points, with some calling for a 10-basis point ease.

The market was also ahuzz with speculation over Thursday's Bundesbank council meeting. As it is the last meet ing before the central bank's Easter break, there was some talk that it might announce fixed-rate repos at lower rates for the following weeks. The next council meeting is scheduled for April 14.

■ UK gilts also gained more than a point, boosted by strong bond markets elsewhere and the latest Confederation of British Industry survey in-dicating that UK retail sales slowed in February from Janu-

time," said Ms Irgeen Rust, ary. Full sales data will be Japanese bonds weakened in economist at Westdentsche released today, along with key Tokyo, pressured by a lacklusreleased today, along with key employment numbers.

Meanwhile, traders expect the Bank of England to announce its next gilt auction on Friday. Most are looking for an Issue of medium-dated paper, possibly the 6 per cent gilts due 1999. The June long gilt future rose 1% point to 113.

■ Italian bonds put on the strongest performance of the day, helped by the successful five-year hond auction and short-covering in the futures market. The June BTP future jumped 1.62 point to 112.17.

However, according to Mr Andre de Souza, market strategist at PaineWebber, the rally was not investor-driven - it was more of a catch-up," retracing the losses of the recent global sell-off, when Europe's high-yielders suffered most.

Tokyo, pressured by a lacklustre two-year auction and worries of further supply. However, they steadied in London trading. The June JBG future dropped 0.68 point to 110.22 in Tokyo, but slipped only 0.02

point in London.

The US Treasury market took a measure of encouragement yesterday morning from a keenly-awaited report on producer prices. However, the positive sentiment was tempered hy concern over stronger thanexpected industrial production

in February. By midday, the benchmark 30-year government bond was ahead at 912, with the yield slipping to 6.88 per cent. On the short end, the two-year note was a better at 995, to yield 4.929 per cent.

the market in recent weeks, traders were able to look past a disconcerting headline figure in the Labor Department's producer price report.

The overall index showed a 0.5 per cent increase, a little worse than analysts had forecast, but most of that gain was attributed to a weather-related 2.8 per cent rise in energy prices. The core PPI, excluding energy and food, showed a tame 0.1 per cent rise, against

expectations of 0.3 per cent. Prices across the yield curve improved on the news, but slipped back soon after the government reported that industrial production was up 0.4 per cent last month, twice as much as the experts had predicted. Worse still, capacity utilisation, a closely watched barometer of inflation, came in at 83.4 per cent, well above the

# marks new era in derivatives trade

The UK-US agreement comes at a vital time, writes Laurie Morse

esterday's news of a counter swaps dealers on pact to co-ordinate reg. notice that they (the regulaulatory overseeing of over-the-counter derivatives trading in the US and UK came as two of the world's most influential groups of traders prepared to open annual meetings in the US.

The International Swaps and Derivatives Association (ISDA) opens it meeting in Chicago today, while intercational derivatives regulators, and rep-resentatives of the exchangetraded derivatives community are meeting in Boca Raton, Florida.

Both organisations have put regulatory issues and interna-tional co-operation at the top of their agendas. Although the two groups see themselves as distinct and often at odds in competing for the world's riskmanagement business, yesterday's regulatory announcement shows that the borders between the two groups have

blurred considerably. The future, and the sustained growth of global derivatives trading - on and off listed exchanges - hinges on the regulatory decisions of a variety of countries. International bank regulators are busy formulating capital adequacy requirements, disclosure rules, and apecial accounting that includes transaction netting.

With their agreement, the Securities and Exchange Commission, the UK's Securities and investment Board, and the Commodity Futures Trading Commission have demonstrated they want to join the bank regulators' discussion, and have put the over-the-

6.59 7.29 7.40 7.50

Mar 15 Mar 14 Yr. ago

0,55 7,69 7,98 6,38

8.71 7.25 7.27

tors) must be reckoned with. For the Commodity Futures Trading Commission, which is facing reauthorisation this year, its co-operative efforts with the SEC and the SIB may help head off Cougressional criticism of its handling of exemptions for certain energy derivatives. Added to this is the fact that it has, at times,

After four years of tractions debate, Congress gave the CFTC limited oversceing of OTC derivatives in 1992, and promised to revisit their regukitory treatment this year. The CFTC's initiative with the SEC may give legislators, who have grown to understand the value uf derivatives, more confidence in the agency.

seemed ill-prepared to deal with a truly global futures and

derivatives crisis.

Taken unawares by the securities regulators' initiative, ISDA leaders had been bracing this week for the release of another regulatory study on the derivatives husiness.

Washington's General Accounting Office is overdue to release an extensive examination on the industry. The GAO is known for its tough and controversial reports, and is not expected to soft hand derivatives dealings like reports by industry groups

such as the Group of Thirty. After a year of such reports, and much discussion by legislators and bank regulators, the SIB-SEC-CFTC pact smacks of action and provides an agenda for co-operation on global OTC derivatives regulation.

8.81 7.52 7.53

7.03 6.44 6.52

6.90

--- Low coupon yield --- -- Medium coupon yield --- -- High coupon yield ---Mer 15 Mer 14 Yr. ago Mar 15 Mer 14 Yr. ago Mar 15 Mar 14 Yr. ago

6.79 7.38 7.39

6.85 6.20 6.38

#### could be slightly bigger this Despite the gloomy mood of Rarity value helps launch New Zealand's FRN deal

By Antonia Sharpe

New Zealand'a rarity value in the international bond market, combined with the likelihood that Moody's is about to raise the country's credit rating, ensured a favourable reception for its widely-expected \$1bn offering of five-year floating-rate notes (FRNs) launched

#### INTERNATIONAL **BONDS**

Mr Alex Jurshevski, head of portfolio management at New Zealand'a debt management office, said the proceeds of the transaction would be used to refinance maturing debt, and would allow the sovereign borrower to call outstanding float-

ing-rate debt.

6.77 1227au 6.72 1167, 6.47 9733u 8.77 116 8.77 116 8.79 1307, 7.01 11534 6.84 10034 6.86 503a 7.12 1167, 7.12 1167, 7.12 1067, 7.13 1193,

+11 12842 +12 1214 +13 10131 +14 11842 +15 1224 +23 1084 +23 1084 +23 1084 +24 11334 +1 1274 +1 1274

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offering due 1996 next week, and that it had already called an old issue of sterling-denominated FRNs, worth the equiva-lent of \$200m.

Mr Jurshevski said although New Zealand actively used its \$3bn Euro medium-term note programme, the government's intention to reduce the country's NZ\$66.7bn foreign debt meant it would be depend even less on the Eurobond market for its funding in the future.

Mr John Orange, senior port-folio manager at the New Zealand debt management office, said the government's strategy reflected its desire to reduce the risk associated with foreign currency borrowing and its success in developing New Zea-land's domestic bond market. Joint lead managers Morgan Stanley and UBS said around

80 per cent of the notes had

and government agencies were strong buyers of the notes, attracted by their zero risk weighting for capital adequacy

purposes.

Sales into Japan were limited, possibly reflecting a reluctance among investors to take on new commitments ahead of the close of the financial year at the end of this month. European sales were mainly to funds in Switzerland, Germany, the UK and Italy. The coupon on the notes, of

in line with market expectations. When the notes were freed to trade, they were hid at the issue price of 99.78. Hydro-Quebec is expected to launch a \$500m offering of fiveyear notes today, via CS First Boston. The notes are likely to

three-month Libor less 1/4, was

yield around 15 to 18 basis points over Libor.

Sorrower US DOLLARS	Amount m.	Coupon %	Price	Meturity	Feda %	Spreed	Book runner
New Zealandfalt	1bn	(6)	99,78R	Acc.1999	0.16R	-	Morgan Stanley/ UBS
Petroleos Meidosnos;	200	(=)	100.009	Apr. 1997	0.375	-	Chase Investment Bank
Petrolege Mexicanos:	200	(d)	100.00R	Apr.1997	0.375R	-	Swiss Bank Corp.
D-MARKS Bara Corp.(e)¢	160	1.00	100.00	Mar, 1998	2.25		Dreedher Bank
YEN Japan Airlines Company#±	10bn	0	100.25	Apr. 1998	0.25		IBJ International

market in two three-year transactions as part of a refinancing of a \$1.5bm bank facility, One transaction was structured as a "volatility floater", which offered investors the chance to ing to A minus from triple B improve their yield.

 Standard & Poor's has raised its ratings on Citicorp and

action reflected the progress Banco di Napoli, under review the company has made in improving its financial strength S&P raised the senior debt rating to A from A minus, and the subordinated debt rat-

Moody's has placed the

for possible downgrading. It said Italy's continuing ssion mada the bank vulnerable to further impairment of its asset quality. Banco di Napoli's long-term ratings are A2 for senior bank deposits and A3 for subordinated bank

He aaid New Zealand been sold by late afternoon. In planned to call its \$250m FRN eastern Asia, central hanks	Pemex, the Mexican oil com- pany, raised \$400m in the FRN credit watch. S&P said the	Moody's has placed the and A3 for subordinated bar long-term ratings of Italy's seventh-largest hanking group, debt.
WORLD BOND PRICES		Art of the second
BENCHMARK GOVERNMENT BONDS	Italy	FT-ACTUARIES FIXED INTEREST INDICES
Red Day's Week Month Coupon Date Price change Yield ago ago	M NOTIONAL ITALIAN GOVT, BOND (BTP) FUTURES (LIFFE) Line 200m 100ths of 100%	Price Indices Tue Day's Mon Accrued ad adj. UK Giftes Mer 15 change % Mer 14 interest yith
ustralia 9.500 08/04 113,3900 -1.250 7.34 7.10 6.27 elglum 7.250 04/04 101.8500 +0.450 6.99 7.00 6.64	Open Sett price Change High Low Est, vol Open Int. Jun 110.60 112.49 +1.70 112.98 110.45 58348 98549	1 Up to 5 years (23) 127.14 +0.12 126.99 2.06 2.07 5 2 5-15 years (24) 153.49 +0.85 152.20 1.83 3.50 1
oda ' 6.500 06/04 93.3500 - 7,44 7,21 6.58 Hurk 7,000 12/04 103.1000 +0,630 6.58 6.62 6.21	Sep 111,90 +1,60 0 8	3 Over 15 years (b) 174.47 +1.11 172.56 0.89 3.53 2 4 (medeemables (6) 202.17 +0.32 201.54 2.75 -1.47 (c)
06 STAN 2 000 05/98 108.2700 40.410 5,70 5.70 5.37 OAT 5.500 04/04 96.2000 40,730 6,15 6.26 5.91	III ITALIAN GOVT. BOND (STP) FUTURES OPTIONS (LIFTS) Lin200m 100ths of 100%	5 At stocks (61) 149.38 +0.67 148.39 1.72 3.00
98.6500 09/03 98.8500 +0.360 8.16 8.12 5.80 8.500 01/04 98.0800 +1.650 9.321 8.13 8.55	Strike CALLS PUTS	Index-linked
No 119 4.900 06/99 105.6770 +0.230 3.48 3.70 3.07 No 157 4.500 06/03 102.8910 -0.700 4.07 4.02 3.38 lands 5.760 07/04 97.8900 +0.720 6.11 6.11 5.83	11060 2.60 3.12 2.40 3.32	6 Up to 5 years (?) 188.23 +0.12 188.00 0.85 1.41 7 Over 5 years (11) 183.95 +0.54 182.37 0.52 1.29
nds 5,750 01/04 97,3800 +0,720 6,11 6,11 5,83 10,600 10/03 111,5000 +0,900 8,67 8,61 7,98 8 8,000 08/98 97-28 +18/32 8,48 6,40 5,95	11150 2.10 2.66 2.90 3.86	8 All stocks (13) 183.49 +0.85 182.05 0.55 1.29
6.750 11/04 97-26 +36/32 7,07 7.08 6.55 9.000 10/08 115-22 +38/32 7,24 7,24 6,84	Est. vol. total, Calls 1286 Puss 1258. Previous day's open inc., Calls 62888 Puss 51448	9 Debs & Loans (73) 145.90 +0.58 145.06 2.14 2.68
xy' 5.875 02/04 95-25 +9/32 5.46 6.34 5.88 6.250 09/23 91-29 +11/32 6.90 5.82 6.41		Averago gross redemption yields lims shows. Coupon Bends: Low 99-74%; Medium: 8%-1
ench Gov() 6,000 04/04 95.8700 +0,470 6,57 6,61 6,17 Hoong, 'Now York mid-day Yorks: Local market standard.	Spain  W NOTIONAL SPANISH BOND FUTURES (METF)	
s enrual yield (including ethiloiding tox at 12.5 per cent payable by nonresidents) US, UK in 32nds, others in decimal 3curos: MMS international	Open Sett price Change High Low Est vol. Open int.	FT FIXED INTEREST INDICES
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on rate 5 Three wordth \$66 Five year 5.80	UK	* tor 1965/54, Greenmant Socurties high eince compilation; 127.40 (8/1/36), low 49.16 (3/1/76). Pho 10/26 and Fixed Interest 1925. SE activity Indicate rebased 1974
ds at Intervention. • One year	M NOTIONAL UK GILT FUTURES (LIFFE)* ESO,000 S2nde of 100%  Open Sett price Change High Low Est, vol Open Int.	
NO FUTURES AND OPTIONS	Mar 111-23 113-00 +1-12 112-31 111-23 1225 12236	FT/ISMA INTERNATIONAL BOND SERVICE
ice	Jun 110-20 112-01 +1-11 112-09 110-19 76597 131454 Sep 111-07 +1-11 0 107	Listed are the labest international bunds for which there is an adequate secondary market, Labest pri
TONAL FRENCH BOND FUTURES (MATIF)	BLONG GET FUTURES OPTIONS (LEFFE) \$50,000 846:s of 100% Strike CALLS PUTS	Issued Bid Offer Chg. Yield In U.S. DOLLAR STRAIGHTS United Kingdom 7 <sup>1</sup> s 87
Open Satt price Change High Low Est. vol. Open Int. 125.60 126.24 +0.68 126.28 126.48 219.944 96.526	Price Jun Sep Jun Sep 110 2-05 2-25 1-25 2-33	Abbey N.cf Tresoury 6 <sup>1</sup> / <sub>2</sub> 00 1000 95 <sup>1</sup> / <sub>4</sub> 96 7.14 Volunteyen Ind Fig. 7 03 Abbey N.cf Tresoury 9 <sup>1</sup> / <sub>4</sub> 65 000 100 <sup>4</sup> / <sub>4</sub> 106 <sup>1</sup> / <sub>2</sub> 2 _4 5.28 World Bank 0 15
125.10 125.78 +0.68 125.80 125.02 57,190 114,811 124.38 125.06 +0.68 124.84 124.38 200 12,590	111 1-36 1-60 1-56 3-04 112 1-09 1-36 2-29 3-44	Austria 4 <sup>1</sup> 2 00 400 100 100 100 100 100 100 100 100
TERM FRENCH BOND OPTIONS (MATIF)	Est, vol. total. Calls 918 Puts 3423. Previous day's open int., Galar 72773 Puts 53246	Belgum 95 95
Apr Jun Sep Apr Jun Sep		British Gen D 21 1600 113 12 8.10 Asian Dov Blank D 70 Canada 9 96 1007 1053 1085 5.53 Austin 42 00
0.55 1.23 · 0.77 1.50 -	Ecu	CODE 9 <sup>1</sup> 4 98 300 104 <sup>3</sup> g 104 <sup>3</sup> g - <sup>1</sup> g 4.75 Countil Europe 4 <sup>3</sup> 4 98 Creung Kong Fin 5 <sup>1</sup> 2 98 000 80 <sup>3</sup> g 94 4 <sup>3</sup> g 7.22 68 8 <sup>3</sup> g 04
0.16 0.73 - 2.02 - 0.04 0.42 0.65 - 2.63 - 0.22	Open Sett price Change High Low Est. vol. Open int.	Council Europe 8 95
tolal, Calls 23,314 Puts 49,342 . Previous day's open Int., Calls 344,686 Puts 296,363.	Mer 117.80 118.29 +0.42 118.34 117.88 3,463 8,696	ECSC 84: 96 193 1064; 1064; 5.73 Hyunchi Motor Fin 812 97
NOTE: DISTRIBUTE (LIFFE) DISTRIBUTE OF 100%	Jun 91.50 91.96 +0.50 91.88 91.50 1.897 1,799	EEC 81: 95     100 105%     106%     -4     5.52     losiand 7% 00       EES 74: 95     250 104%     105%     +4     5.49     Kohn 6% 07       EES 34: 97     1000 110%     110%     -1     8.83     Ontare 6% 08
Open Sett price Change High Low Est vol Open Int.	US  US TREASURY BOND FUTURES (CBT) \$100,000 32nds of 100%	Ber de Fierros 9 95 200 109% 110% 4 5.14 Quebes Hydro 6 09 200 107 107/2 5.45 SNCF 7 04
96.82 97.86 +0.99 97.96 96.76 192626 202830 97.01 97.66 +0.96 97.60 97.01 157 5070	Open Latest Change High Low Est vol. Open Int.	En-Im Bunk Japan 8 02 500 105 ½ 105 ½ 6.23 World Bunk 6 00 Export Dev Corp 9½ 85 150 111 ¼ 112 ¼ 6.27 World Bunk 7 01
NO FUTURES OPTIONS (LIFFE) DM250,000 points of 100%	Mar 109-15 109-27 +0-04 110-04 109-14 12,960 53,059 Jun 108-14 108-23 +0-02 109-02 108-10 572,457 355,982	Friend 76 97 200 1047 1059 1 5.97 Firsth Expan 97 98 200 1081 1062 1 5.28 YEN STRAIGHTS
Jun Sep Jun Sep	Sep 107-16 107-27 +0-02 109-04 107-15 4,855 39,861	Ford Motor Credit 6 <sup>1</sup> / <sub>4</sub> 981500 98 <sup>1</sup> / <sub>4</sub> 100 <sup>1</sup> / <sub>4</sub> 6.42 9eigium 6 991 Gen Elec Ceptel 9 <sup>1</sup> / <sub>2</sub> 96300 107 <sup>2</sup> / <sub>4</sub> 108 <sup>1</sup> / <sub>4</sub> 5.56 EB 6 <sup>2</sup> / <sub>2</sub> 001
1.30 1.53 0.91 1.36 1.05 1.80 1.16 1.82	Janan	GAAC 9 <sup>12</sup> , 95 200 105 <sup>2</sup> , 106 <sup>2</sup> , 5.91 Bec de France 5 <sup>12</sup> , 96 200 105 <sup>2</sup> , 105 <sup>2</sup> , 11, 6.09 France 5 <sup>12</sup> , 97 200 105 <sup>2</sup> , 11, 11, 12, 13, 14, 6.09 France 5 <sup>12</sup> , 98 200 105 <sup>2</sup> , 11, 11, 11, 11, 11, 11, 11, 11, 11, 1
1.05 0.80 1.09 1.41 1.91 1. sotal, Calls 10344 Puts 15068. Previous day's open int., Calls 233448 Puts 214441	Japan  motional long term Japanese Govt. Bond futures	htter Armer Dev 75g 58
TOWAL MEDILIM TERM GERMAN GOVT. BOND	(UFFE) Y100m 100ths of 100%  Open Close Change High Low Est. vol Open int.	Japan Dev Bi, 8-j 07
LYLIFFE) DM250,000 100ms of 100%	Jun 110.17 110.25 110.06 2077 0 *LIFFE contracts traded on APT. All Open interest age, are for previous day.	Measurita Rec 74, 02 1000 1014 1015
Open Sett price Change High Low Est. vol. Open III. 100.92 101.47 +0.49 101.44 100.92 1226 3346		Neport Tel 74 87
		Ortanio 7 <sup>2</sup> 1 05 3000 101 ½ 102 723 Oster Kentrolikanis 6 <sup>1</sup> 2 01 200 108 ½ 108 ½ 6.77 OTHER STRAIGHTS
CILTS PRICES	10 May 1 May 20 May	Petro-Canada 7 <sup>1</sup> 4 96 200 103 <sup>1</sup> 4 104 <sup>1</sup> 4 5.60 Arbed 7 <sup>1</sup> 2 95 LFr Portugal 8 <sup>1</sup> 4 05 1000 91 <sup>1</sup> 5 91 <sup>1</sup> 5 7.16 Gentinance List 9 <sup>1</sup> 8 99 LFr
Yield 1993/891	Miles C + or - High Low (1) (2) Price C + or - High Low	Quebec Hydro 94, 88         150         11724         1124         6.56         World Bank 8 96 LFr           Quebec Prov 9 88         200         1085g         1085g         6.51         Bank Voor Ned Gern 75g 02 R
Tress 11 kpc 2001-4 9.34	7 10 1273 at all 3 12022 11674 Index-Listed 65	Sainstury Pig 96
res tap in First Tables   12.37 4.94 101 -> 1093 101 Funding 3*200*99-4	6.24 794 +14 1251 1857 20:36 [7.8] 1- 1374 - 1374 1317 7.17 1188 +18 1251 1857 20:36 [7.8] 1.50 2.47 2004 +7 2042 1941	SBAB 6½ 95 500 105½ 105½ 14½ 4.99 Bell Caracta 10½ 99 CS SKCF 6½ 95 115½ 115½ 1½ 2½ 24 8.21 Belsh Cotaratia 10 99 CS Sept 9½ 99 1500 98% 100½ -1a 6.52 EB 10½ 95 CS
994 12.10 4.90 103 1 110 103 Trem 6 to 2004 6.91	7.03 974 +14 1044 965 21 20 70 763 240 270 7742 +14 1752 178	State Bk NSW 812 95 200 105% 106% 5.79 Elec de France 9% 89 CS
11.33 4.91 1052 -1. 1112 1052 Comy 1/2 pc 2005	7.70 13733 T 137 14743 200 18 60 50 271 3.00 1774 +116 1842 1894	Sweden 5½ 95 2000 100½ 100¾ 4 5.17 Gen Bec Capital 10 98 CS Sweden Export 8½ 95 700 105½ 105¾ 5.48 KW let Fin 10 01 CS
1995tt 11.41 5.33 11113 1164 1113 Bec 2003-6tt 7.58	7.17 1045g +15 1125 955 295 295 (78.5) 2.98 3.19 1505 415 1585 145 272 1045g +53 1117 945 255c 17 (78.5) 3.04 2.7 1575 415 1751 1481 7.38 1271 415 1355 1187 1255 1255 1355 1257 415 1464 1225	Fokyo Bec Power 81, 96 300 1081, 1871, 14 5.68 Neppon Tel Tel 101, 89 CS Tokyo Metropolis 81, 96 200 108 1081, 12 5.72 Ontario 6 03 CS
	7.21 1107, +1,1 11911 97,1 2130:18. S1.51 3.14 3.29 1475, +1,2 15714 13015 7.42 1423-st +113 1513 1514 2130:29 83.00 3.19 3.32 1423-st +12 15215 1243	Toyota Motor 5 <sup>1</sup> <sub>9</sub> 99 1550 98 <sup>1</sup> <sub>9</sub> 96 <sup>2</sup> <sub>9</sub> 6.17 Ontario Hydro 10 <sup>2</sup> <sub>9</sub> 99 C8 United Kingdom 7 <sup>1</sup> <sub>9</sub> 02 3000 102 <sup>3</sup> <sub>9</sub> 902 <sup>3</sup> <sub>9</sub> 6.81 Oster Kontrollbank 10 <sup>1</sup> <sub>9</sub> 99 CS
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96 1977 941 312 1112 +5 1143 1105 96 1977 941 1172 1173 1174 1177 1177 1177 25 1774 +5 1321 1275	Prospective real redemption rate on projected inflation of (1) 10% and (2) 5%, (b) Figures in perertificace afrow PPI base for including (is 8 months prior to issue) and have been adjusted to	Council Europe 9 01 Equ
1997 11.77 8.76 12/44 13 14/3 1094	reflect rebasing of RP4 to 100 in January 1967. Conversion factor 3,945, RP4 for June 1965; 141.0 and for January 1994; 141.3.	Austrie 6 <sup>1</sup> / <sub>2</sub> 24 2000 94 <sup>1</sup> / <sub>4</sub> 94 <sup>7</sup> / <sub>3</sub> 4 <sup>1</sup> / <sub>4</sub> 652 88 10 67 Eoz Crede Fornier 7 <sup>1</sup> / <sub>4</sub> (3 2000 104 104 <sup>1</sup> / <sub>2</sub> 4 <sup>1</sup> / <sub>4</sub> 6.64 Ferro del Star 10 <sup>1</sup> / <sub>3</sub> 96 Eoz
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	7.27 116% +12 125% 100°2 7.27 117% +1% 127% 100%	Datache Sk Fn 7½ 00 2000 105½ 105¾ 41¾ 6.83 United Kingdom 9¾ 01 Ecu 2000 105½ 4½ 6.89 ABC 10 99 AS
200 1998## 8.51 8.62 111% + 119% 105% Team 5/200 2008-12## 6.50	7.25 1073 at 1174 9351 Motes in Red Price E + or - High Low	ESC 6½ 07 2900 102½ 102½ 142 5.99 SP Arresta 12½ 98 A\$ ESC 6½ 07 1800 107½ 107½ 1½ 6.02 Comm Bit Austrials 13½ 99 A\$
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PUTS	U.S. DOLLAR STRAIGHTS			- Ca	p. Yink	Unite	od Kingdom 74, 87	550	104%	1043	43	5.86			100	112%	1134	6.69
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	Creang Kong Fin 5½ 95	000	23.5	94 105-k	4 72 55	2 588	de France 74 08 -	30	112	112 <sup>1</sup> 4 115	4	5.24 5.60	Ontano 114 Powosoen 6	01 £	100 250	1177		μ <sub>2</sub> 7.69 μ <sub>3</sub> 7.78
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cted inflation of (1) 10% as show PPI base for	Wasti Bank 6% 97	1500 10	0612	1054	5.5	Coun	um 9 <sup>1</sup> a 95 Ecu cal Europe 9 01 Ecu	1250	113-2	105% 113%	44	6.13 6.70			300 4 65 1.		1 <b>06</b> 10 21 <sup>1</sup> / 1227	
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11/2 -1 150/4 117/2 18/4 -1 145/4 115/5	CONVENTELE BONDS: Deno current effective price of acqui	mmated in d ing shares o	ens to	and out	the most	PECENT P	nce of the thorns.	er out	A. M. 1848	- Targetting	c.f	any of		aven ide i	and the court of		· · safer had	QE BIÇ
148 -24 1592 1324	© The Francial Times Ltd., 19	64. Repod	uction in	whole or	in part in	ary kan	not permitted will	nout weitten co	prosent. Di	ata supple	d by t	des sign	nal Sucumbes i	Markul Asso	ciation.			

£89.1m

Sbares in Maid, the on-lina

business information supplier, were priced at 110p yesterday

valuing the group at £89.1m -

well halow market expecta-tions fuelled by the company

Some 11.5m shares in the

nine-year-old group have been

placed firm with institutional

investors by Hoare Govett.

stockbroker to the issue. on

The new shares represent a little more than 14 per cent of the shares in issue following

Earlier the company had been confidently predicting

that the issue, underwritten by Hill Samnel, would place a

minimum value of £100m on

the group and provide it with about £16m in net new funds.

A placing price of up to 150p a

been dogged with controversy.

with some analysts and fund

managers expressing concern and surprise at Maid'e pro-posed stock market valuation

and lack of established track

As a result the company

scaled down its expectations

for the flotation price and has

abandoned plans to spend £4m

on a building to consolidate the groop's UK operations.

In addition, a number of

existing BES investors in the company who had been expec-ted to sell shares in the plac-

Nevertheless, both the com-

any and its advisers insisted

that the placing had been a success and defended the pric-

Ing while hlaming competitors

for "the hackground noise"

Mr Stephen Aulsehrook of Hill Samnel, described the 110p price as "very attrac-

tive", and said the placing had

been well received hy most

"We set out to raise enough

money for the company to

move forward and we have

done that," he said, adding, "it

is a hell of an achievement for

a company which, as some

people have pointed out, made

Mr Daniel Wagner, Maid's

30-year-old founder and chief executive, said he was

pated, would enable Maid to

continue to develop its product

portfolio, including a planned

version of Maid for Windows

He dismissed the company's

critics who have questioned

various aspects of its

operations, including its

dependence oo primary husi-ness information providers.

"This is a hrilliant husiness

and we are going to prove it in the market." Mr Wagner said.

version of it's software.

"thrilled to hits" with the

tively"

only £600,000 in profits last

surrounding the issue.

institutional investors,

ing, have decided to wait.

share had been mooted. However the flotation has

and its financial advisers.

ehalf of the company.

### Shift in focus leaves Williams down at £153m

By Peggy Hollinger

A shift in focus hit Williams Holdings, the conglomerate which yesterday announced a £4.2m drop in pre-tax profits to £153.2m for the year to Decem-

Profits were depressed by a £17.1m loss on the disposal of the bulk of Williams' engineering division to management for £40m. The sale is part of the group's strategy to focus on three sectors - huilding products, security and fire protection. Excluding exceptional items, pre-tax profits rose by 13

Cashflow from operatiog activities for which Williams has been criticised in the past. improved by 15 per ceot to £227.9m. This represented 119 per cent of operating profits.

tive, was bullish about the outlook for the group's main operating markets, saying there were definite signs of recovery in both the UK and US. Some 80 per cent of the group's sales are from those two markets. In Britain however, "government policy and consumer caution will limit the pace and degree of demand improvement." he

Williams was seeking growth in spite of such difficulties, Mr Rudd said, through expanding its share of even sluggish markets by tapping new outlets.

The group's sales were 17 per cent higher at £1.21bn, including a £66.9m contribution from acquisitions. Continuing husioesses were 11 per cent up at

Williams pursued acquisi-tions aggressively during the year, speoding £157.6m on seveo businesses. These cootributed £6.3m to operating profits, which improved overall hy 13 per cent to £191.6m.

North American huilding products showed the strongest advance, as a result of a cost reductions. Operating profits rose 34 per cent to £39.6m. Fire protection improved by

19 per cent to £47.6m, while the European huilding products operations contributed £89.1m against £59.3m. The security division improved from £22.5m to

In line with its stated policy of seeking to improve the dividend cover to about two times Williams proposed a final payment of 7.75p. This leaves the total divideod just 2 per cent

higher at 12.75p. Earnings fell

### Medeva chief goes as rise of 28% to £46m is shown

By David Wighton

Mr lan Cowrie-Smith, the Australian entrepreneur who founded Medeva, the acquisitive pharmaceuticals group, is resigning his executive posi-tioo nine months after a profit warning which halved the

Mr Cowrie-Smith, managing director, and his long-time husiness partner Mr David Lees, who is resigning as finance director, will continue to provide the group with "acquisition services" on a con-sultancy basis. Mr Gowrie-Smith will remain a non-execu-

The resignations came as Medeva anoounced a 28 per cent increase in pre-tax profits to £46.1m for 1993,

in July the company warned that profits would be about £10m lower than analysts' expectations of £53m-£57m largely due to problems at IMS and MD Pharmaceuticals. US subsidiarles, which would cost

£200.4m with organic growth excluding exchange rate movements of 20 per cent. Earnings per share slipped 4 per cent to 11.8p due partly to a higher tax charge. The final is 1.8p (1.5p)

giving 2.7p (2.25p) total. Mr Bernard Taylor, wbo was hrought in as chairman in 1990, insisted that the resignations were not linked to the problems the group encoun-tered last year. He denied there had been any pressure on them

Although it is an open secret that Mr Taylor found it hard to work with Mr Gowrie Smith sources close to the company insisted that the resignations

were voluntary.
"Bernard couldn't force them to go. In the end they went hecause they got bored." The shares added 7p to 155p

Both will receive £30,000 in compensation for loss of office and have been granted threeyear consultancy agreements. These provide for initial payments of £286,000 and £230,000 Sales jumped 39 per cent to and payments over the next three years totalling a minimum of £700,000 and £400,000 respectively. Mr Gowrie-Smith received a salary of ahout £310,000 last year, down about

25 per cent. Mr Taylor revealed that the group pulled out of a potential deal after the shares slumped from 216p to 116p on the profit warning hut said it still needed to make acquisitions, Mr Gowrie-Smith said it could afford to make a £100m purchase without issuing more shares.

COMMENT

The rather modest rise in Medeva's share price yesterday may reflect the fact that Mr Gowrie-Smith's move was seen as only a matter of time. There were also a few negatives with the figures, which were boosted by booming flu vaccine sales, including a year delay in the important hepatitis B vaccine programme. On forecasts for the current year of about £54m the shares are now on a multiple of about 12.5. There is plenty of scope for further

### Owen & Robinson price rises on reports of stake acquisition move

Shares in Owen & Rohinson, the gold jewellery and sports footwear retailer, rose 8p to 34p yes-terday after a report that a stake in the group might be taken by Mr Philip Green, the controversial former chairman and chief executive of

Amber Day, the discount retailer.

Mr Green sald last night: "At this moment, I have bought no shares." It is understood, however, that Mr Green has had talks with Mr Mattrice Dweck, a former chairman of Owen & Robinson, who still owns 15.8 per cent of its

Mr Green declined to comment on any possihie talks, but said: "I always look at interesting situations. If it's the right deal at the right time, I might look at it."

Mr Steve Foot, Owen & Robinson's finance director, said of Mr Green: "If he's huying shares, he hasn't done so yet."

Mr Green stepped down in September, 1992, from Amber Day, which has since been renamed the WEW Group. He left with a £1.13m golden handshake after a deluge of adverse press coverage was followed by results well below analysts' expectations. Mr Green also received £7.6m from selling his stake in the group.

#### Saatchi back to black with £19m **Flotation** values Saatchi & Saatchi, one of the world's largest advertising groups, yesterday reported pre-tax profits of £19.2m for the rise from £713.8m to £77 Similarly, operating costs appeared to rise from £713.8m to £776.6m. But once Maid at

year ended December 31 1993, compared with a lose of £595.1m in 1992, writes

Diane Summers.

The figure was in line with City expectations, which were revised downwards hy about £6m in December, after a profits warning from the group. The shares closed down 1p at 141p.
Saatchi hailed the results as a return to

profitability for the first time since 1988. However, the 1992 figure included a £600m write-off of goodwill associated with US acquisitions made in the 1980s.

Revenue from continuing operations rose 10 per cent, from £731m to £806m, hut the rise was accounted for by currency movements, said Saatchi. Excluding these

constant exchange rates ware applied and severance, property credits and disposals excluded, costs dropped by 1 per

The group warned that revenues in 1994 will be lower than for 1993. "The revenue outlook for 1994 is difficult. We have lost two big clients, in neither case due to the quality of our work, and clients remain cautious about their planned level of expenditure, particularly in Europe."

Trading profits increased by 8 per cent to £36.8m (£34.2m). Severance costs of £19.1m were charged and £7.3m surplus property provisions were credited. Excluding currency movements and exceptionals trading profits increased by 1 per

Profit margins, excluding exceptional items, increased from 6.1 per cent to 6.3 per cent in 1993. Mr Charlie Scott, group chief executive, admitted that the group was not on course to meet his target of 10 per cent margins by 1995. Meeting the target was dependedt on revenues increasing in line with inflation, and that had not

happened during 1993, he said.

Profit attributable to shareholders totalled 27.3m (loss of 2613.7m), with earnings per share of 3.7p (losses of 362.8p). No

dividend will be paid. After taking into account a £73m rights issue in June and currency movements, average net debt during December 1993 was £112m, a reduction of £82m. Analysts forecast pre-tax profits of about £30m for 1994, with earnings per share of 7p.

### Of relationships and bottom lines

Diane Summers on the personal conflicts that split the Saatchi board

r Charlia Scott, group chief execu-tive of Sastchi & Saatchi, yesterday described the past 18 months as the worst in his life However he considers his struggle to reduce dehts, restructure operations and install effective management is now largely

As his statement accompany ing the group's results yester-day said: "All the businesses remaining in the group are now profitable, and as trading conditions in our core markets start to improve during 1994, I am confident Saatchi will demonstrate the performance that our shareholders have the right to expect,"

Whether or not his confi-dence is justified will depend, to a large extent, on two factors, First, the Saatchi board will need to pull together and overcome the emharrassingly public conflict between Mr Maurice Saatchi, its chairman, and Mr Scott

Second, the revamped man agement, particularly in the US, will need to start showing new husinesa gains and evidence that it can reverse the decline in market share which has been eroding revenues. The relationship between Mr Scott and Mr Saatchi appeared

was announced that Maurice's hrother, Charles, would step down as a director.

It was also decided that Saatchi's offices in Berkeley Square, in the West End of London, would be vacated. There followed rumours that

to decline sharply from the

point when, in December, it



Maurice Sastchi (left) and Charlie Scott there is concern that their public conflict could affect relationships with clients

huy-out and that Maurice wanted to take over more of the running of the group. Now, a compensation committee, headed hy Sir Peter Walters, will examine Maurice's fiveyear rolling contract, described by Mr Scott as "not within the spirit of the Cadhury guide-

Says one Maurice supporter: He admits he has withdrawn a lot over the past year, he had let things drift. He's left executive functions with the hoard and he now believes that was a

Maurice is said to feel that the "beancounters" have failed to deliver their promises on the financial side. Mr Scott's supporters, in turn, say that Maurice has not delivered on his part of the bargain - bringing

To hlame Mr Scott for what continues to be a depressing picture is unjust, according to the heade of other

aid the chief executive of one large group yester-day: "One has to remember it was Maurice Saatchi who made the bid for the Midland Bank. He was also one of the architects of the huge, sprawling, shambling empire. To begin to hlame Charlie Scott, who seems to have done a fair job of stabilising the business, seems to me to be desperately unfair. Indeed, there wouldn't be a business without Charlie

The head of another large agency pointed to the "nervousness and confusion"

which is being felt by staff at the Saatchi & Saatchi agency network, which shares the holding company's name. There is concern that some of the bad press will have an effect on relationships with cli-

And it is the relationship with clients - particularly potential clients - that will have most influence on the bottom line. According to Mr Scott, the group has lost about 1.4 percentage points of market share over the past three years - worth about £50m a year in revenue - from the 20 per cent of the glohal market it

The problem is largely in the US, where big contracts to have been lost recently include the Chrysler and Helene Curtis accounts, worth £30m in revenue this year,

Fixed costs are high. The staff of about 11,000 account for more than 60 per cent of revenue. By growing revenue, Mr Scott is aiming to get this down to the 55 per cent or so enjoyed by competitors Inter-public and Omnicom - he calculates that at least half of any extra revenue will flow straight to the bottom line.

Mr Scott calculates that over the past four years, and in par-ticular over the past two, about 70 per cent of the managers he describes as the "key drivers" towards these ends have been replaced or transferred.

"For the first time since I joined the company, we now have quality CEOs in all our operating companies. These people have been selected for their ability to grow the husl-

#### cing while acknowledging that market conditions had Restructuring aids Emess recovery resulted in the issue having to be priced "more competi-He said the new funds, while somewhat less than antici-

By Simon Davles

Emess, the UK's largest lighting company, yesterday announced the reversal of two years of losses with pre-tax profits of £4m for 1993, against a £10.6m deficit in 1992. The result was mainly attributable to improved performances from the US and German subsidiaries, and the impact of an aggressive restructuring programme.

During 1993, group staffing levels were reduced by 20 per cent to 2,000, as husinesses were streamlined and unprofitable product lines cut. Sales per employee rose from £54,000 to £64,000 in the year.

Turnover was £131.2m, against £130.3m from continuing operations in 1992. Mr Michael Meyer, chairman, said: "I am more encouraged by prospects for our husinesses in 1994 than at any time during the past four years". He added that trading in the first two months was ahead of bud-

Operating profit was £6m (£1m loss). The UK operations contributed £5.9m (£0.1m) and they have seen a strong start to the current year.

Brilliant, the German husiness, had lost £2m In 1992, hut contributed a marginal profit last year, after staff reorganisation.

Also its US subsidiary returned to the black during 1993. Net debt at the year-end was up from £20m to £26m, because of the repurchase of £11m of preference shares. However, average debt for the year was lower, and interest payments fell from £3.6m to £2m.

The company has recommended an unchanged final dividend of 0.1p. despite the fact that net earnings of £2.4m were not sufficient to cover preference dividends of £3.9m.

Fully diluted earnings per share amounted to 1.5p (7.2p losses). The shares closed 24p higher yesterday at 32p.

headed hy Mr Alistair Cum-

ming are also expected to be strengthened by imminent

management changes to boost

the company's engineering

BA's engineering operations

have seen significant growth

over the last three years. The company, which outlined yes-terday its plans to its unions to

transform the engineering

husiness from a cost centre

into a profit centre, sees strong

potential for further growth in

Already about 15 per cent of

#### CABLES . CIRCUIT PROTECTION

# DELTA

CONSISTENT STRATEGIC VISION

	1903	1992
	£ı	n
Turmover	832.7	785.9
Profit before interest	60.0	60.7
Profit before tax	53.4	55.0
Earnings per share	23.1p	23.0p
Ordinary dividend	14.5p	14.0p

Copies of the Annual Report & Accounts for the year ended 1st January 1994, from which the above is an extract, are available from 19th March from the Secretary, Delta plc, I King-way, London WC2B 6NF, Telephone 071-836 3535.

ENGINEERING - INBUSTRIAL SERVICES

### **B&J** puts pressure on bankers

By Peggy Hollinger

Brown & Jackson, the discount retailer which has raised £39m from shareholders since 1992, yesterday sought to put pressure on its bankers hy warning it could not continue trading unless working capital facilities of £14m were agreed

The company's shares fell by 3% to 2%p as it revealed substantially larger than expected losses for 1993 and warned of the difficulties in negotiations with its bankers.

If working capital facilities for the next 12 months are not secured soon, the £6m sale and leaseback transaction which was due to be completed yes-

Castle

December 1993.

**Comms** 

rises 22%

Castle Communications, which

is involved in marketing audio

and video film rights, achieved

a 22 per cent improvement in pre-tax profits from £927,000 to

£1.13m, for the six months to

Mr Terry Shand, chairman,

said the company had heen helped by substantial increases

in licensing income and video

product sales, and good growth

Turnover advanced by 10.5 per cent to £18.8m (£17m).

After taking into account losses at Castle Australia,

since sold, operating profits fell

The interim dividend is lifted

to £1.39m (£1.47m).

in the German subsidiary.

terday cannot go ahead.

Analysts held out little hope of a resolution, at least through the hanks, and said that the group had been expec-ted to make further losses this year. "B&J has just passed its cash peak," said Mr William Cullum, analyst with brokers

put in.'

Panmure Gordon. "eo the banks will get out what they The announcement was also a bigb risk gamble, he suggested. "If you were a sup-plier would you now want to

supply B&J? This sort of public disagreement could be self-ful-filling," Mr Cullum said. Mr Ian Gray, the chief executive appointed following a res-cue rights issue in 1992, said

**NEWS DIGEST** 

to 4.5p (4p), payable from earn-

ings of 10.2p (8.2p) per share.
The company's shares trade
on the USM.

Heiton pays I£8.1m

Heiton Holdings has bought F&T Buckley (Holdings), a huilders merchant based in the

Irish Republic, from Harrisons

& Crostield for IE8.1m (£7.79m)

Proceeds of the sale will be

used by H&C to reduce borrow-ings. The company will also assume horrowings hy

Buckleys of approximately

Heiton is also to raise 159.2m by way of a 4-for 7 rights issue of 16.4m new ordinary shares

The issue has been fully

underwritten hy AIB Capital

of 25p at 56p aplece.

Markets.

for F&T Buckley

the group had "adequate trad-ing facilities today". He was confident that the company would be able to trade until a solution was found. "Wa have a number of options," he said. One of the options was investment by a foreign discount retailer, he said. The group was in discussions with both the retailer and the

have decided not to provide further facilities in light of the group's most recent results and its past trading record. Brown & Jackson unveiled full year losses of £12.7m (£6.6m) on turnover of £170m (£167m), against average expec-tations of an £8m deficit.

banks.

Hampden nears breakeven

Hampden Group, the USM-traded homecare and DIY retailer, managed to approach breakeven in the second half of the year to January 1, leaving pre-tax losses at £220,000 against profits of £482,000. Interim losses had heen

Turnover edged ahead to £30m (£29.8m). Losses per share came out at 1.47p (2.08p aarnings). The dividend is being passed, Last time there was a total of ip.

**Ashanti** 

Ashanti, one of the world's higgest gold mines, will have a market capitalisation of up to \$1,67bn (£1.14bn) after its flotation, not £1.67bn as printed in vesterday's Financial Times.

### **BA** separates out engineering side

By Paul Betts, rospace Correspondent

British Airways is setting up its engineering activities as a separate profit centre next month in an effort to reduce the airline's overall aircraft maintenance and engineering costs, as well as expand engineering services to other carri-

The engineering and aircraft

maintenance activities employ ahout 10,000 people out of BA's total 50,000 strong workforce and include facilities at London's Heathrow airport and in Wales, where BA overhauls Boeing 747 jumbo airliners and recently opened an aircraft avionics repair and maintenance

aircraft maintenance and engineering services. BA's overall engineering activities involves work for other carriers and the airline bopes to develop this third party

business through its latest The engineering activities

	Current payment	Date of payment	Corres - ponding dividend	T <i>otal</i> for year	Total last year
Brown & Jacksonfin	πil		0.1	nit	0.1
Castle Commune §int	4.5†	July 5	4		8.5
Crockfordsfin	25†	Apr 29	-	2.5	
Deltafin	10.3	June 1	9.8	14.5	. 14
Emessfin	0.1	May 23	0.1	0.1	0.1
Evans Halshawfin	9.21	May 13	7.65	13	11.2
Everest Foodsnt	1.2	•	1.2	•	3.7
Gracebyfin	3.3†	May 17	7.6	6.8 -	10.9
GT Chile Growthfin	60‡	Mar 31	ndi	120	25
Hall Engineeringfin	3.02	Apr 22	5.34	9.5	8,64
Hampden §fin	73Ú		0.8	ηĐ	1
Heywood Williamsfin	8.5†	-	a	13	12.5
Lionheartfin	0.2	July 1	nii	0.3	0.2
Medevafin	1.8†	May 23	1,5	27	225
Paterson Zochint	2.45	May 8	2.35	<u>-</u> :	12.6
Scholesint	1.7	May 8	1.6		5
Wassallfin	241	May 20	1.7	3.4	2.5
Williams Hidgsfin	7.75†	May 26	7.5	12.75	12.5
Wimpey (George)fin	3.25	May 9	3.25	5.25	5.25
Wolseleyint	4.72	July 29	3.55	-	13.3

Unidends shown pence per share net except where otherwise stated, †On increased capital. §USM stock. †Cents throughout.

while UK house sales are

expected to top 7,500 during

the period. Gearing was likely

to reach 30 per cent, implying

from £4.5m to £2.2m on turn-

over down from £683m to

£659m, reflecting the difficult conditions in the UK. The fig-

ures however excluded fam of

interest on advanced payments

Minerals, helped by a £7.9m

windfall planning gain, rose to

Wimpey's results were bang in

line with expectations. Even so

its share price fell 8p to 210p

following the figures. The mar-ket having given the company

credit for rehuilding its hal-

ance sheet is concerned about where it goes next. There is

concern that Its emphasis on

first time huyers will mean

that margin recovery may be

restricted. The UK aggregates

business also compares unfa-

vourably with its main rival,

Tarmac. The company talks bravely of acquisitions and

organic expansion, but now

needs to deliver. Profits of

£45m put the group on a pro-spective p/e of more than 20. The shares, after a good run,

are now suffering.

on construction projects.

£13.1m (£1.6m).

O COMMENT

Construction profits halved

net debt of about £160m.

COMPANY NEWS: UK

By David Wighton

on sales up 11 per cent to £277.8m.

Profits were boosted by the £103m rights

issue launched to fund the thwarted Evode

bid. But the issue diluted earnings per

Mr Chris Miller, chief executive, said

that earnings per share would have been 11 per cent higher but for the rights issue,

though they were lifted 8 per cent by

The loss of Evode, where Wassell was

share which rose 23 per cent to 11.7p.

exchange rate movements.

### Wimpey bounces back into black with £25.5m

By Andrew Taylor, Construction Correspondent

Wimpey, following its higgest ever pre-tax loss of £111.6m in 1992, bounced hack into the hlack last year with pre-tax profits of £25.5m

Trading profits rose 85 per cent from £22.1m to £40.9m, boosted by a strong recovery in UK housing, with completed sales up by a quarter to 6,936.

Group turnovar fell from £1.64bn to £1.59bn. The final dividend is again 3.25p, maintaining the total for year at 5.25p, just covered by earnings of 6.81p a share. Housing, in splte of only

breaking even overseas, moved from a £33.3m loss in 1992 to a £25.4m profit last year. Operating margins in the UK, having fallen in every year since 1989, more than doubled from 3 per cent to 6.5 per cent last year. This compared with a peak of 19 per cent four years ago.

Mr Joe Dwyer, chief execu-tive, was optimistic about further rises in UK house sales and margins, with prices already starting to edge off the bottom in south-east England.

He said the company had seen no evidence that tax rises due to take effect next month were dampening demand from prospective purchasers.



Joe Dwyer: optimistic about further rises in UK house sales

Wimpey would be selling its house building businesses in France, Spain, Australia and southern California to concentrate on its UK and other US housing operations. Also still np for sale was £135m of commercial property investments.

The group has raised more than £300m from disposals, transforming its balance sheet and reducing gearing from 30 per cent to 5 per cent, the lowest level for 20 years. Net debt of £28m at end-De-

cember, however, is expected to rise this year as the group increases land purchases, **Zochonis** rises 15% Paterson Zochonis, the

**Paterson** 

detergents manufacturer, was bullish yesterday about prospects as it announced a 15 per cent increase in interim pretax profits to £13.6m.

The increase was achieved on sales 3 per cent ahead to £126m for the six months to November 30.

The company said it was confident that, harring any unexpected currency movements, it would increase profits from last time's £25.3m in the year to May 31. The interim dividend was increased by 4 per cent to 2.45p. Earnings were 18 per

cent higher at 17.69p. During the first half, profits were helped by lower interest charges, an increased contri-bution from associates and an improved operating return. Interest charges fell hy 18 per cent to £2.74m, while the

contribution from associates rose by £600,000 to £1.83m. The company said trading in parts of Africa was becoming increasingly difficult, particularly in Nigeria, the Congo and

In Europe, Paterson increased sales of Cussons soaps and tolletries in a competitive market. The Polish detergents manufacturer returned an encouraging performance, the company said.

acquisition-driven group, Mr Miller 36 per cent at 3.4p (2.5p). pointed to the strong organic growth Wassall, the conglomerate which lost the shown by the 32 per cent increase in operhid battle for Evode last year, saw pre-tax ating profit to £27.2m. "That suggests It may be that the ex-Hanson men who profits jump from £17.8m to £27.6m in 1993 there is something we are doing that is not

straight asset-stripping."

or no recovery last year. Even in the US, its DIY products sup-

Rights bolsters Wassall advance

plier DAP has had to work hard to increase sales and most of the advance came from higher margins. Its operating profits rose from £10.5m to £13.7m, on sales £20.7m higher at £146.7m.

outbid by Laporte, has been followed by further disappointments, including abor-Metal Closures, the bottle top manufacturer which was the group's first large tive talks with Fenner. "We have got quite acquisition, continued to make good progclose to a number of things but most failed for price-related reasons," said Mr Miller. ress. The South African arm which contributes nearly 30 per cent of group profits, had an "excellent" year in difficult condi-"We are as confident as you can be that tions and the division's profits rose to \$12.2m (£9.3m) on sales of £82.1m (£76.6m). there will be an acceptable deal in the not Although Wassall is still viewed as an A final dividend of 2.4p gives a total up

#### COMMENT

run Wassall are just too choosy when it comes to huying companies. But then they He said the improvement was "particularly satisfactory" given that most of its markets outside the US experienced little ments that most "growth" companies would kill for. Perhaps most remarkable of all is the progress of Metal Closures' South African husiness, where profits have risen from £1.5m to £8m since Wassall bought the company in 1990. This exposure may unsertle the nervous, though Mr Miller points out things would have to get pretty bad to hit sales of bottle tops. The real worry is Wassall's inability to find an earnings enhancing acquisition despite the low returns on its cash pile. Without some action before long, the shares' deservedly high rating will be hard to sustain. On current year forecasts of about £31.5m the shares at 295p, up 10p, are on a multiple of

#### Tiphook's shares rise on container sale completion

Shares in Tiphook rose hy 5p to 55p yesterday after the debtladen transport leasing group confirmed the completion of the sale of its container business to Transamerica, the US financial services group, writes

Andrew Bolger. Proceeds of £673m were received yesterday by Tiphook,

which could receive a further £49m from the deal. The final consideration depends on changes in the net assets of the container operations between September 30 and yesterday, and is subject to a completion audit. Tiphook, which had debts of

more than £1hn, had warned that its survival depended on the successful disposal. Completion of the sale was

conditional on consents by a equal instalments. majority of the group's US cured at a premium for the

GKN 90.9% acceptance in loan stock rights issue

GKN vesterday announced it 4.83m units for which valld had received acceptances in respect of almost 50m units of non-interest hearing convertible loan stock, representing about 90.9 per cent of the units offered in its recent rights

The units are priced at 480p apiece and are payable in two

Subscribers have been pro-

acceptances were not received. The second instalment of 240p per stock unit remains conditional on the offers for Westland becoming wholly unconditional and GKN achieving 75 per cent ownership o Westland.

SG Warburg is acting for GKN in connection with the offers and the rights

### Holders bid to oust **Andrews Sykes board**

By Tim Burt

Rebel shareholders at Andrews Sykes, the lossmaking industrial services group, yesterday launched a hid to oust the board in a re-run of a similar

coup attempt 18 months ago. Dissidents led by Mr Jacques Murray, who holds 29.2 per cent of the Midlands company, have called an extraordinary meeting at which they hope to win management control.

A spokesman for Mr Murray, chairman of Nu-Swift, the fire protection group, said the move reflected dissatisfaction

with Sykes' performance. Last December, the group reported interim pre-tax losses of £2.34m (£802.000 profit)...

"We want to support the company and hring about an improvement," Mr Murray's

spokesman added. Mr David Hubbard, group chairman, said the hoard would fight the rehel action and would seek the support of institutional shareholders.

Opposition by institutional investors defeated Mr Murray 18 months ago after the last hattle for control. Andrews Sykes has now offered Mr Murray board representation, but not majority control. His spokesman said the offer had not heen rejected, hut described the extraordinary meeting as a parallel tactic. Andrews Sykes shares closed up 5p at 90p.

#### Visa EMEA spending rises 13% to \$183bn

J.COM.

The amount of spending using Visa cards within the Europe, Middle East and Africa region (EMEA) totalled \$183hn (£125.3hn) in 1993, some 13 per cent higher than in 1992.

The number of Visa EMEA card transactions rose hy almost 5 per cent to 2.36bm, while the number of Visa cards in existence rose by more than 5 per cent to 70.8m.

Mr Jean-Jacques Deshons, president and chief executive of Visa EMEA, said the organi-sation was confident that growth "will continue throughout the next year and will increase further as the world economy starts picking up." Both the increases in card-

holder spending in terms of US dollars and in the number of cards in 1993 against the previous year are lower in percent-age terms than annual increases since 1989.

Mr Desbons also said Visa planned to introduce its Electron card into the UK before the end of the year. It is already available elsewhere and can be used only through alectronic means. Because each transaction would be authorised individually by the banks, tha card would offer greater security, and so banks might be prepared to make it available to more of their customer

base than existing cards.
Visa EMEA represents about 36 per cent of Visa International's worldwide sales volume.



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**FINANCIAL TIMES** 

#### IN BRIEF

SECURITIES BARING Emerging Markets Index Tracker Fund: Net asset value at December 31 \$14.67 (£10) against \$10.50 issue price. Net realised gain for period April 15 to December 31 1993

BEAUFORD has received valid acceptances in respect 6.24m ordinary shares allotted by rights, representing 76.37 per ent of the issue.

BORTHWICKS has made two property disposals for £600,000 in line with book value. BURMINE has received valid acceptances in respect of 19.3m Europa Minerals Group ordinary shares (78.5 per cent) and has extended its offer to March 29. Acceptances of the linked Austmin offer had been received in respect of 45.1m fully paid ordinary shares, (63.9

BWD SECURITIES, Yorkshirebased financial services group, has completed a contract to purchase a freehold office building being constructed in Sheffield for £559,300.

CANNON STREET Investments has sold Thierry's Wine & Food Services for a nominal consideration to Mr Thierry Cabanne and Mr John Hayston who are directors of Thierry's.
CENTRAL EUROPEAN
Growth Fund has received applications in respect of 24.7m ordinary shares (with warrants attached). Accordingly, the international placing has been increased and 175m ordinary shares (with warrants) have been placed firm, making the total size of the issue 200m shares (with warrants). Some \$200m (£137m) has been raised. Dealings are expected to start

on March 21. COUNTY SMALLER Companies Investment Trust: 4.97 per cent of open offer of C shares taken up. The placing and open offer raised a total of 235.8m. Change of name to Nat-West Smaller Companies Investment Trust agreed. CRAY ELECTRONICS has sold Nexus Custom Electronics to Jaco Electronics for \$1.6m

Daily Gold Fax - free sample from Charl Analysis Ltd LOW COST 081-944 0111 SHARE DEALING SERVICE OF ICHIMINE BLE MOUSE CORNE



**Market-Eye** London stock exchange

By Paul Cheescright, Midlands Correspondent

Evans Halshaw, the Birmingham-based motor distribution and vehicle management group, yesterday delivered its promise of a fourfold increase in 1993 profits and prompted a 17p rise in the share price to

549p.

Il announced pre-tax profits to of £7.81m for the 12 months to December, compared with £1.71m for 1992.

Last November, when the group bought TK Motor Group. it forecast 1993 profits of

Earnings per share climbed from 5.4p to 24.3p, providing cover of 1.36 times for the increased dividend. The proposed final is 9.2p

(7.65p), making a total of 13p, against 11.25p for 1992 when payments to shareholders were partially financed from Turnover rose from £341.5m

to £404.7m as The new and used car market revived. New car sales were 28 per cent ahead and used car sales 16 per cent ahead of 1992.

However, the staple source of Evans Halshaw's profits the servicing, parts sales and



huovant in 1994 so far

accident repair market - was flat until towards the end of

This after-market provided 62 per cent of group profits, compared with 70 per cent in 1992. There was no absolute decline of earnings from the after-market, but its share of group profits fell because earnings from car sales rose. Capital investment, notably

a second motor village at Solihuli, West Midlands, where five dealerships are grouped together, totalled £5.1m last man and chief executive, expects spending this year to be slightly less.

'Across the group, car sales have been buoyant in the first two months of 1994 and our trading results are significantly abeed of the same period last year," Mr Dale

• COMMENT

Evans Halshaw is riding up the economic cycle and its profits would no doubt increase even if it did nothing except avoid silliness. in fact, it is expanding into a fragmented market with costs already pared. It is now obtaining the benefits of its investment of the last two years. Solihull alone this year should sell 5,000 cars. It is developing other atreams of revenue like the sale of fleet management software. It is unrealistic to expect another fourfold profits increase, but feasible to think of pre-tax profits this year pushing towards £13m to give earnings per share of about 40p. On a prospective multiple of less than 14, it looks as if they bave some way yet to motor, always providing that economic recov-ery is sustained.

### Hall Engineering leaps to £8.6m and lifts dividend

By Andrew Baxter

Hall Engineering (Holdings) yesterday announced a sharp rise ln 1993 pre tax profits from a restated £2.36m to £8,56m and is raising its dividend for the year by 10 per cent to 9.5p.

with a final of 3.02p. The Shrewsbury-based metal stockholding, steel products and automotive engineering group benefited from blgber margins in its steel reinforcement business, especially in the first half, the completion of its UK rationalisation and another rise in profits from associated companies in the

Pacific Rim. Pre-tax profits for 1992 have been restated for FRS 3, and

would have been £5.6m on a pre-FRS 3 and pre-exceptional

cost basis. Sales Inst year rose 8 per cent from £135.7m to £146m, and also by 8 per cent, to £182m, if share of associates' sales is included.

Earnings per share rose to 19,18p, against 3.05p in 1992 when there was a loss per share of 1.67p under the basic calculation including exceptional Items.

in metal stockholding, losses were cut by £800,000 to £183,000, while the steel reinforcement business turned a £1.5m loss into a £62,000 profit. Profits in the engineering division fell by £1m to £3.2m,

due mainly to reduced profits

and redundancy costs in Stat-co's pressings division. Profits in the automation division were slightly ahead.

Mr Richard Hall, chairman, said the takeover of Rover by BMW could help Stadeo win business for the first time from the German car group, and Stadco's recently-announced joint venture with Honda Engineering would not be affected.

On the outlook, Mr Hall said he would be very disappointed if the company could not further improve profits slightly this year, in some businesse confidence is much higher than at the same time last year, although others are still indirectly affected by the recession in continental Europe.

### Wainhomes share issue priced at 170p

By Andrew Taylor. Construction Correspondent

Wainhomes, the Chester-based bonsebuilder, yesterdey announced details of its plans to raise £30.5m from a flotation and offer for sale at 170p a share.

The total amount to be raised is £41.9m including the sale of 5.8m shares by existing institutional shareholders.

The issue will give the company a market value of about £106m. It plans to place 16m shares mostly with institutions while offering a further 8.62m shares for sale to the public. After the sale it will have 62.24m shares in issue. Wainhomes is forecasting earnings of not less than 9.3p

per share for the year ending March 31, putting the group on a p/e of 18.3 times the issue It said that if it had been already quoted it would have recommended a total dividend

of 4.2p net, representing a notional gross dividend yield of 3.1 per cent. The company is the latest in a growing list of UK househuilders to issue shares to finance land purchases to take advantage of the bousing market recovery. It is forecasting pre-tax profits of £6.1m for the

per cent gain on the previous vear's £5.3m. It expects to heve sold about 950 homes by the end of March, which should rise to between 1,200 and 1,500 next year, before increasing to 1,800. The company will use the proceeds to repay borrowings - currently £17m - and to

year to the end of March, a 15

COMMENT

buy land.

On the basis of earnings and yield the offer price of 170p is at a slight premium to Beazer, a large proven housebuilder, which announced its flotation terms last week. Wainhomes as a small provincial builder bowever, bas more to gain from increased volumes - and its margins stand comparison with the better builders. Given market demand for the sector, both Beazer and Wainhomes issues should aucceed.

### Restructuring costs and heavy interest charges behind deficit Ransomes £8.9m into the red

By Tim Burt

Ransomes, the manufacturer of grass-cutting equipment, yesterday reported abarply increased losses as it struggled with the twin burdens of largescale restructuring and heavy

The two factors led to pre-tax losses of £8.9m in the 12 months to December 31, compared with a restated 1992 deficit of £600,000. Mr John Clement, chairman, hlamed the decline on e

restructuring programme involving a 12 per cent cut in the workforce, the removal of a tier of senior management and the contraction of its operating divisions.

The programme led to e threefold increase in excep-

tional charges to £5.8m.
Operating profits, meanwhile, fell by 35 per cent to £5.3m amid intense competition in the US and flat sales in Europe

ther by interest charges of £8.4m (£8.7m) on net borrowings of £75.3m (£76.1m), representing gearing of 450 per cent. Despite the problems, Mr Clement, who took over as chairman last October, said its principal bankers had agreed to maintain existing borrowing

facilities of £120m. They heve also backed moves to reshape the group by Mr Peter Wilson, eppointed chief executive last outumn. Mr Wilson initiated the

redundancy programme, closed some overseas facilities and

reorganised group operations in two new divisions - commercial and consumer.

Profits in the commercial operation fell sharply to £1.76m (£7.11m) following the group'a failure to exploit market opportunities - particularly among golf course operators. Its poor performanca was offset by increased demand in the consumer division, which saw operating profits increase 25 per cent to £3.52m.

Group turnover rose slightly to £165.8m (£156.6m). Losses par share worked through at 26.1p against a restated 11.5p.

The company, which omitted its interim dividend, is also passing the final on both its ordinary and cumulative pref-

Ransomes is paying the price for its dash for growth in 1989 when it acquired Cushman, the US grass machinery group, for \$150m (£103m). Although, the ent has begun to new manage tackle the debt burden left by that purchase, it faces an uphili struggle. The pressure has been increased by its decision to change the year end to September, leaving only 10 months to produce some posttive results. Nevertheless, it claims to have already stripped out \$10m of costs in the US and £1.5m at home. Analysts, who were unwilling to make profit forecasts, warned the group would have to make operating gains of more than £5.7m just to pay its dividend liability and

### Poland's biscuit market crumbles to McVitie's

By Christopher Bobinski

A large share of Poland's biscult market yesterday fell to McVitie's, a United Biscuits aubsidiary, when the biscuit and snacks producer agreed to pay £19.1m for 80 per cent of the San factory in Jaroslaw, the country's last large biscuit plant still in state hands.

Last year Jacohs Suchard bought the Olza plant in Cleszyn, while Bahlsen, a German snack producer, took control of Skawina, another biscuit producer in southern

These purchases came as PepsiCo Foods International wes developing its bourselisted Wedel chocolate factory,

bought in 1991, into a saity snacks producer which looks set to double its 1993 net profit of \$30bn zlotys (£9.7m) this

Both RJR Nebisco and PepsiCo bid for San, which reported a £1.8m net profit last year, as did the French BSN food group which has yet to purchase a snacks plant in Poland.

Mr Hartwig Conzelmann, of McVltie's said yesterday that his company was planning to build on San's 20 per cent market share and "dominate the country through a new nationwide marketing net-

Yesterday's agreement also spoke of plans for expansion from San's base in south east Polandinto Belarus and the considering building e salty McVitie's intends raising

San's capital by £6.7m this year and investing a further £8.4m over the next two years. It will be preparing a prospectus for a Warsaw stock markat listing within nine months and the £6.7m capital increase could well come from the local capital market. McVitie's has promised to retain a 51 per

The Central European Trust advised the Polish government on the transaction while McVitie's was advised by

cent in San for three

McVitle's bought Gyori Keksz, Hungary's largest bis-

#### Lionheart back in black with £1.77m

generate earnings per share.

Lionheart, the Cheshire-based paint brushes and housewares group, returned to profit in 1993 with £1.77m pre-tax, a £2.64m turnround on 1992's deflcit of £870,000. Mr Paul Lever, chairman, said an acquisition was now likely within months; writes Ian Hamilton Fazey.

Turnover rose by 7 per cent to £46.7m (£43.6m), giving a profit-to-sales ratio of 3.8 per cent. With earnings per share of 0.49p (losses 0.59p) a final making 0.3p (0.2p) for the year. The group returned to the dividend list only two years ago after reconstruction under Mr Lever, the chairman and former chief executive of Crown Paints.

Talks are understood to have begun about an acquisitlon with an announcement in the

### A £50m magic wand from Ford

#### Kevin Done on plans to revive the ailing Aston Martin Lagonda

ord, the US motor man-ufacturer, is planning to transform the fortunes of Aston Martin Lagonda, the UK luxury sports car maker in which it acquired a 75 per cent stake in 1987.

House disclose for the first time the financial scope of the project to develop a new range of Aston Martin sports cars, the DB7, which are due to enter production next month.

Ford has injected £50m in new equity to fund the peak financing requirements of the DB7 programme, in the process lifting its shareholding to 99.5

The DB7 programme has imposed a heavy burden on Aston Mertin Lagonda's

The group's losses in the last two years – £18.9m in 1993 and £16m in 1992 - were incurred after charges to the profit and loss account for the development of the DB7 totalling £13.7m in 1993 and £6,6m in 1992, including £2.1m for the original feasibility study.
The DB7 programme has led

to a far-reaching reorganisa-The board now includes Mr

Jackie Stewart, the former Formula 1 world champion, Mr Nick Scheele, chairman and chief executive of Jaguar, and Mr Tom Walkinshaw, whose TWR motor sports engineering group has played a significant role in the DB7 project.

The Aston Martin Lagonda group accounts disclose that JagnarSport. a 50/50 Jag-uar/TWR joint venture of which Mr Walkinshaw is a director, was paid £10.1m in 1993 and £5.3m in 1992 for providing engineering services for the development of the DB7. Jaguar is 100 per cent owned

The new Aston Martin sports car, expected to sell for below £80,000, is heavily dependent on outside suppliers.

Body panels and welded bodies are to be supplied by Motor Panels, a subsidiary of the lavflower spe tive engineering and design

The hodies will be painted by Rolls-Royce Motor Cars' plant at Crewe, Cheshire, and the cars will be assembled at the plant in Bloxbam, Oxfordshire,

which has previously built the Jaguar XJ220 super car. The plant will be taken over

this year by Aston Martin Lagonda. The DB7 engines will be assembled by TWR. Last year Aston Martin produced only 144 cars at its Newport Pagnell plant in its tradi-

tional Virage/Vantage range,

which sell from £134 000 to

FutureSource

put is now forecast to increase fivefold with DB7 production set to total 600-700 a year. Output of the DB7 starts next month with deliveries

beginning in the UK in the

£178.000, but the group's out-

Canada in the autumn of 1995. Output next year is expected to total 625. While the DB7 bas been

under development the existing Aston Martin business based on the Virage/Vantage range has been under heavy pressure as e result of recession in the US and UK. Turnover fell from £27.3m in

1990 to £20.8m in 1991 and £12.4m in 1992, although sales began to recover to £15.9m last year with e pick-up in both the UK and the US. The workforce has been drastically reduced to an average 285 last year from 359 in 1992, 448 in 1991 and 522



NEWSLETTERS

### Invitation to the Annual General Meeting

Notice is hereby given that the Annual General Meeting will be held at 10.1 m., on Thesday, 26 April 1994, at the Jahrhunderthalle Hoechst, Frankfurt am Main

Agenda

1. Presentation of the approved annual financial statements, the Group financial statements as well as the summarized management repurts of Hoechst Aktiengesellschaft and the Floechst Group for the tinancial year 1993, together with the report of the Supervisory Board

2. Resolution on the approprintion of retained earnings

It is proposed to pay a dividend of DM Z- per share of DM 50.- nominal value.

3. Ratification of the acts of the Board of Management

4. Ratification of the acts of the Supervisory Board

5. Election to the Supervisory

6. Election of the auditors for the financial year 1994

proceduit, Regulered Office Number One Southwork Bridge, London, SEI 011L Received in England Na Ustigue

The full agenda, including the proposed resolutions, is contained in the Bundesanzeiger no. 52 of 16 March 1994.

Shareholders wishing to be present and to vote at the Meeting must comply with Article 14 of the Articles of Association and deposit their share certificates during usual business hours by Tuesday, 19 April 1994, at the latest until after the Meeting, at one of the depositories listed in the Bundesanzeiger no. 52 of 16 March 1994, or, in the United Kingdom, at the

S. G. Warburg & Co. Ltd. 1 Finsbury Avenue London EC2M 2PA

Hoechsi Aktiengesellschaft Frankfurt am Main, March 1994

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COMPANY NEWS: UK

Dividend increase reflects company's optimism on prospects

## Delta falls slightly to £53.4m

By Andrew Bolger

Delta, the cahles and engineering group, reported flat annual results yesterday, hut signalled guarded optimism about the economic outlook by increasing its dividend for the first time since 1990.

Pre-tax profits dipped from £55.1m to £53.4m in the year to January 1, mainly because of higher interest charges following its £37m purchase of the outstanding 36 per cent stake in Delts Crompton Cable Holdings from BTR, the industrial conglomerate. Sales rose from £786m to £833m.

Earnings per share increased marginally to 23.1p (23p). A final dividend of 10.3p lifts the total to 14.5p (14p).

Mr Robert Easton, chief exec-

utive, said Delta was one of the first UK companies to freeze dividends as the downturn took hold, but now hoped it had seen the hottom of the receasion in continental Europe.

madel 6

William To

The upbeat tone was carefully qualified by Delta, which in September saw its shares marked down sharply after it warned that the UK recovery in manufacturing was more anaemic than many observers

Mr Geoffrey Wilson, chairman, said yesterday: "Whilst current patterns of demand

Scholes 84%

helps lift

**By Simon Davies** 

IJK sales.

tions suggest s strengthening in some sectors. Whilst we have seen transient effects hefore, there is now greater evidence to suggest that the economic tide may be finally on the turn."

Delta said it was another tough year, with continuing depressed and fiercely competitive trading. European construction markets showed little recovery.

Mr Wilson said: "Early signs of more encouraging activity in the UK soon relapsed and demand then persisted at depreased levels. Prices nained under pressure, par-

ticularly in cables."
Delta shed 800 jobs last year, hringing the total employed down to 13,300. The group has cut its workforce by a third since 1989. Mr Easton said he would "go on trimming - but the battle will moderate".

The cables division suffered particularly from UK price wars, with operating profits tower at £5.89m (£8.68m). Circuit protection dipped to £15.8m (£17.1m) and engineering to £19.9 (£22.2m). Industrial aervicas however, rose to £18.5m (£12.8m).

Actions speak louder than words, and Delta's willingness to let dividend cover fall to 1.6



Robert Easton: hoping be had seen the bottom of the recession

strikes a more positive note than the chairman's heavily hedged statement on prospects. Analysts were struck by how tough things were in the cable market, but still believe Delta's willingness to reduce its cost base makes it heavily geared to any upturn. Action, rather

than further talk, on a possible US acquisition would also be appreciated. The shares, down 7p to 522p, are on a prospective multiple of about 19. The 20 per cent premium to the market reflects Delta's recovery stock

# status, but does not look unjus-

Scholes Group, the electrical installation equipment group, yesterday announced an 84 per cent increase in pre-tax profits from £1.3m to £2.4m for the six months to December, despite a marginal increase in

Turnover rose 5 per cent to £31.1m, but this was boosted by exports, which increased by 21 per cent to £3.8m and now account for 12 per cent of group sales.
Scholes' earnings growth

was achieved primarily through further lowering of the company's cost base, but also through some price increases in its major busigear for the domestic housing

market. Operating profit margins increased from 5.5 per cent to 8.3 per cent at the interim stage, and Mr Bill Riches, chairman, said he was confident further operational streamlining could be

Mr Riches said: "Management continues to focus on lowering the group's cost structure and pursuing ways of enhancing manufacturing productivity.

He said it would be tough for the company to achieva further price increases, however, due to increasing competition from European manufacturers prepared to huy market share at the expense of profit margins.

The company remains cash positive, and its net cash position increased by 37 per cent to £2.2m in December. Scholes also announced that

it had agreed to sell its 17 per cent stake in Malaysian-listed PWE Industries.

The company will pay an interim dividend of 1.7p (1.6p). Earnings per share increased from 2.4p to 4.3p.

### Cost cutting Improved production helps Aviva cut losses to \$2.63m

By Peggy Hollinger

Aviva Petroleum, the small US-based oil and gas explorer, quoted in the UK, yestarday announced sharply lower net losses of \$2.63m (£1.8m), against \$10,23m last year, because of improved production from the group's Colombian project. Tha hatter result was

achieved on virtually static oil and gas sales of \$10.68m. against \$10.42m last time. The loss per share was reduced from 124 cents to 11

no dividend. Mr Ron Suttill, chief executive, said he was confident the group would be able to achieve

profits in splte of a depressed oil price. Aviva was aiming to break even by the end of the current

He stressed the potential of further development of the Col-ombian project, jointly owned with Ecopetrol, the stata energy company. By 1995 Aviva hoped to earn some 24,000 barrels s day from

cents. As in the past there is fields, which would result in a net cash flow contribution of about \$12m a year, Mr Suttill

Net production from Colombia increased by 54 per cent to 279,000 barrels during the year. Mr Suttill said the increase. combined with a 10 per cent risa in US gas prices, more than offset a decline in oil and gas volumes in the US and reductions in the US and Colombian oil price. Currently all of Aviva's Colombian produc-

### Seafield ahead to £1.62m

Pre-tax profits of Seafield Resources, the USM-quoted oil and gas exploration company, rose from £1.06m to £1.62m in the year to end-

At the operating level profits ware up from £632,000 to £1.5m. Turnover grew by 39 per cent from £5.55m to £7.74m, the bulk of which -56.8m - was generated in the UK from the group's 5 per cent interest in the Victor gas

As part of last year's overhaul of North Sea taxation rules, companies were prevented from offsetting exploration and appraisal spending against income from fialds which incur Petro-

Although the terms were ultimately modified to include a limited form of transitional relief. the outcome this time suffered from a surge in the tax charge from £200,000 to £967,000. This impacted on earnings, which fell from 1.7p to

Operating cash flow was up 82 per cent at £4.84m (£2.66m). Mr John Raitt, chairman, said that hydrocar-bons had been encountered in all five UK wells

in which the company participated. Two of these wells were significant discoveries, and one successfully appraised an extension to the Victor field, confirming additional

The balance sheet remained strong with no debt, he added. The company said it intended to apply for

a full listing when the simplified, low cost, procedure for USM companies had been finalised.

### Everest shares fall 9p on warning about static second half results

Shares in Everest Foods severe pressure on margins. tumbled 9p to 68p yesterday after the West Midlands-based egg and chip producer said it was unlikely to achieve full year profits in accordance with market expectations.

Mr Boh Gilbert, chairman, said the trend towards economy products had resulted in

This meant that pre-tax profits fell from £1.18m to £1.08m in the six months to November 30, although turnover grew by

nearly £3m to £19m. The company had taken steps to make manufacturing processes as cost effective as possibla. However, Mr Gilbert

warned that if current trading conditions persisted, full year profits were unlikely to improve substantially on tha interim figure.

Although earnings per share slipped from 3.15p to 2.9p, the interim dividend has been held at 1.2p and a scrip dividend alternative proposed.

Notice is bereby given that for the period 28th February, 1994 to 28th chrusty, 1995 the notes will carry an est Rate of 6 11/16 % per amoun. The interest payable on the relevant interest payment date 28th February. 1995 will amount to ECU 6,780.38 per

Paying Agent Soditic Finance Limited

#### LEGAL NOTICES

NOTICE IS INDICENT ON AN IN the Workship dated the 2nd March 1994 confirming the reduction of the capital of the above-named Company from ELSCS,000.00 to £1,076,148,70 and the Alimate approved by the Court showing with respect to the capital of the Company as above the Several particulars required by the Photocompilation of the transport of the capital of the Company as above the Several particulars required by the

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#### Crockfords Heywood Williams in gambling sixfold rise to £35.2m profits rise 16%

By David Blackwell

Crockfords, the casino company that was reversed into TV-am last summer, lifted profits from its gambling husiness by 16 per cent in 1993. Operating profits from the continuing gambling side rose from £19.8m to £23m on gaming turnover up from £44.4m to £51.3m.

At the pre-tax level profits for the year to end-December were £23.2m against £38m in 1992, with the 1992 figure including £15.7m of operating profits from TV-am, which topped broadcasting on December 31 1992. Crockfords opened London's

first legal casino in Curzon Street in 1961. Last August the company reversed into TV-am, which had lost its licence and was planning a voluntary liquidation. Mr Garry Neshitt, chairman.

aid the groop was firmly established at the upper end of the London gaming market. While the number of casinos in London was unchanged at

21, the total gaming income was 34 per cent shead at £304m. "I believe that a significant proportion of this increase may have been from the higher valoe players for whom we cater." Mr Nesbitt

said.
Basic earnings per share were 16.18p (24.05p). A final dividend of 2.5p is proposed for the first four months of the year, equivalent

to 7.5p for the full year. Mr Neshitt said the strategy was to develop the existing club, on which £700,000 was spent last year, and to look out for other London casinos. It would also be seeking acquisitions or start-np opportunities "in Europe and other overseas areas where gaming is well regulated".

· COMMENT

Profits at Crockfords depend on a small number of big hitters – the prospectus said that over three years ten exceptional players had accounted for 50 per cent. Clearly the company needs at least one more casino to diversify its risks. But it is highly cash generative and ungeared, so should be able opportunity arises. Given the same level of husiness this year earnings could reach more than 16.5p. A dividend of 8p would represent a yield of more than 6.5 per cent worth the gamble.

which is in the process of being re-organised, also con-Pre-tax profits of Heywood tributed a small profit.

Since the year end Heywood

and automotive components has completed the acquisition group, rose more than six times in 1993 from £5.5m to of Bristol Products, the US plumbing components supplier, for \$81.2m (£53.4m). The purchase was funded by a The company was assisted hy significant gains following a rights issue which raised series of disposals and acquisi-tions. Operating profits, even £52.4m at the end of last year. The company, as forecast, is paying a final dividend of 8.5p (8p) making a total for the year after stripping out these bene-

fits, still rose by 86 per cent from £8.02m to £14.99m. of 13p (12.5), the first dividend The £95m sale of the groop's UK glass division to Pilkington increase for two years. Earnings per share were added a further £15m to these 36.2p (1.7p) or 32.9p (1.7p) profits. Another £2.99m came from the first six months earndiluted or 15.5p (1.7p) hefore exceptional profit on the disings of LaSalle-Deitch, which posal to Pilkington. Turnover

supplies components and fur-nishings for manufactured fell from £389.5m to £365.6m.
The shares following the homes in the US. announcement rose 7p to 437p interest on Heywood's cash halances, currently about £10m, increased pre-tax profits hy another £500,000, compared with a dehit of £3.02m.

compared with a rights issue price in December of 280p. Mr Ralph Hinchliffe, chairman, said: "The sale of the

under-performing UK glass businesses, and the acquisitions we have made to secure

ness acquired last autumn, and and strengthen key market positions in the more huoyant US manufactured housing and recreational vehicles markets. has transformed our pros-

COMMENT

The tide is starting to turn in favour of Heywood Williams' main markets. US housing and automotive businesses, accounting for almost half of group turnover, are growing strooger as the economy recovers. Bad winter weather, also, will have had less of an impact on manufactured homes than on general househuilding. In the UK, the homes market should continue to improve, while increased investment in depots should offset any temporary softening of the market following last year's introduction of windscreen checking in MoT tests. Pre-tax profits could approach £40m this year. A quality management and strong balance sheet makes the

### **Rugby Estates net** worth will triple after flotation

By Simon Davies

Andrew Taylor,

£35.2m

Construction Correspondent

Williams Group, the building

Rughy Estates, the property investment company run hy the former property team at Hillsdown, the food group, is planning to raise £20m from a flotation which will triple its net worth.

Bridgewater, the UK automo-

tive glass replacement husi-

Rugby Estates was set up in 1990, 51 per cent owned by the management, led by Mr David Tweeddale-Tye, chairman, and Mr Andrew Wilson, managing director, and 40 per cent by director, and 49 per cent by Hillsdown. It started from scratch and had net assets of £6.8m at the end of 1993, and a property portfolio now valued st £29.2m.

The management is offering three-year-old company which made pre-tax profits of only £2m in 1993. But they boast a long and profitable history with Hillsdown, which almost floated its property arm

Mr Tye ran Hillsdown's property arm throughout the 1980s. He built up gross assets of £100m and pre-tax profits of £18m at the market peak of 1989, and succeeded in selling around two thirds of its portfolio before the slump. Rugby will raise £19.7m net

of expenses from the share placement, of which £4.7m will be used to repay a loan to Hillsdown and £2.6m to huy a portfolio of properties from the food group. Gearing will fall to 5 per cent, providing scope for

shareholding, valued at about fam, through the placement, The management will own about 13 per cent of the enlarged company. Mr Tye said Rughy would continue to focus on retail properties, which represent 80 per cent of the current portfo-lio. It is also likely to remain

Hillsdown is selling its entire

an active property trader. Rugby's speciality is huying secondary market properties where it can sdd value through intensive management. The company's first investment, appreciated by 93 per cent since its purchase for £2.85m in

January 1991. The full prospectus will be issued on March 30, and dealings are expected to commence on April 8.

#### Likely £60m tag on Robert Wiseman

company worth an investment

Robert Wiseman Dairies, the Scottish liquid milk processor and distributor, yesterday issued the pathfinder prospectus for the institutional plac-ing which should lead to it obtaining a stock market listing by the end of the month.

The placing, by Panmure Gordon, should raise between £15m and £16m, leaving 75 per cent of the company in family hands. It is likely to value the company at about £60m.

The terms of the placing will be announced on March

Rohert Wiseman concentrates on supplying branded Scotland and is expanding in the north of England from a base in Manchester.

In the 39 weeks to January 1 1994 turnover was £44.26m About half the placing will finance a milk processing plant in Manchester while the rest will be to complete the recent purchase of Mackie's dairy near Aberdeen and future acquisitions.

### Graseby surges ahead to £9.57m

Graseby, the medical electronics, product monitoring, environmental and defence technology group, yesterday reported sharply higher 1993 profits reflecting growing inter-national sales, lower interest costs and the absence of excep-

tional charges.

Pre-tax profits for the year to end-December jumped to £9.57m from the depressed £1.02m recorded in 1992, when they were reduced by \$4.3m of net exceptional costs.

Earnings per share jumped to 11.4p (1.3p) and, in line with the hoard's previously announced decision, the final dividend is being reduced to 3.3p (7.5p) making a total for

shares closed down 5p st 181p. Turnover increased by 10.8 per cent to £113.7m (£102.6m) including £15.4m (£22.4m) from discontinued operations. Sales from continuing operations grew by 22 per cent to £98.7m

with exchange rate movements

accounting for just over a third

International sales grew by 21 per cent, excluding exchange rate movements, reflecting the group's reduced dependence on the domestic market Operating profits increased

of the increase

to £11m (£7.85m) including a £501,000 contribution from discontinued operations. In 1992 diacontinued operations reduced profits by £1.32m.

exceptionally strong performance by the defence business. where a number of large orders were completed resulting in the technology division reporting profits of £4.2m (£571.000) on sales up 24 per cent to

In contrast, operating profits and trading margins slipped in the three other divisions despite increased sales. Net interest costs fell to £1.4m (£2.52m) partly reflecting a decline in year-end borrowings from £20.7m to £15.9m,

representing gearing of 66 per cent - down from 99 per cent. COMMENT transformation from a group

defence and component sectors to an international instrument supplier focused on four distinct value-added markets. The balance sheet is now in much better shape and horrowings should fall further - even without the deferred flotation of Graseby Anderson in the US. Although several of its mar-kets - including the UK medical market - face pricing pressures, the overall trading margin should edge higher again this year towards the group's 15 per cent target. Pre tax profits of about £10m this year should provide earnings of about 11.7p. The shares are • COMMENT trading on a prospective p/e of Graseby has completed its trading on a prospective p/e of 15.5 and look slightly underval-

langdom and the Republic of Ireland Lamned the "London Stock Exchange". It does not constitute an invitation to my person to subscribe for or purchase any securities in M.A.I.D plc ("M.A.I.D"). Application has been made to the landon Neck Pacturge for all of the ordinary shares of 1p each in MA LD to be admitted to the Official List. It is specied that such admission will become effective and that dealings will commence on Friday 25th March 1994

Uncorporated in England and Wales under the Companies Act 1985 with registered number 18902361 Placing by Hill Samuel Bank Limited

of 11,500,000 ordinary shares of 1p each at 110p per share payable in full on acceptance

Share capital following the placing

Authorised Amount Number

140,000,000 \$1,100,000 Ordinary shares of 1p each 81,036,810 \$810,368.10

Issued and fully paid Number Amount

Copies of listing particulars relating to MATD may be obtained during normal business hours on any week day (Saturdays and public holidays excepted) up to and including 18th Murch 1994 from the Company Announcements Office of the London Stock Exchange, Stock Exchange Tower, Capel Coun Entrance, off Artholomew Lane, London EC2N 11IP (for collection only) and up to and including 30th March 1964 from

ALA LD ple MAID House 18 Dullerin March London ECTY 8PD

Hill Samuel Bank Limited 100 Wood Street London EC2P 2A)

Houre Govett Comonite Finance United 4 broadgate London EC2M 7LF.

Hill Samuel Bank Umited is a member of The Securities and Futures Authority

16th March 1994

#### ECU 15,000,000 SOFINLUX S.A. Luxembourg Floating Rate Notes due 1999

ECU 100,000 nominal.

No 0010850 of 1997 IN THE HUGH COUNT OF JUSTICE CHANCERY DIVISION IN THE MATTER OF NU-SWIFT LIMITED (Brimerly No-Swift pic)
AND IN THE MATTER OF
THE COMPANIES ACT 1985
NOTICE IS LIERCHY CIVEN that the Order of

marca me several particulars required by the above-membrated Act were registered by the Registra of Companies on 4 March 1994. Danet the 11th day of March 1994 Berwin Leighton Adelaide Floure

carned Company

#### **CROSBY SECURITIES**

Mr J. Mark Martyrossian has been appointed Managing Director of Croshy Securities (H.K.) Limited. Mr Martyrossian, a qualified solicitor, practised in the corporate finance department of a leading City firm before completing an MBA at INSEAD. He has over seven years experience in Asian equity markets. He joined the main board of Crosby Securities two years ago and is also a director of two London listed investment trusts.

CROSBY SECURITIES

Little of process transfered as

Fiduciary Issue by Krediethani S.A. Luxembourgeoise to fund a loan to be made by it to

ISVEIMER Istituto per lo Sviluppo Economico dell'Italia Meridionale Italian Lire 150,000,000,000

In accordance with the Terms and Conditions of the Notes, notice is hereby given that for the Interest Period from March 16, 1994 to June 16, 1994 the Notes will carry an Interest Rate of 8 9375 % per annum The Interest Amount payable on the relevant Interest Payment Date, June 16, 1994 will be ML 114,201 per ML 5,000,000 principal amount of Note and ITL 2,284,028 per ITL 100,000,000 principal amount of Note

Floating Rate Notes due 1997

The Agent Bank Kredietbank S.A. Luxembourgeoise Alliance International Health Care Fund nventissement à Capital 47, Boulevard Royal L-2449 Luxembo

NOTICE OF MEETING

We have pleasure in inviting you to attend the Annual General Meeting of shareholders, which will be held on Wednesday, March 30, 1994 at 2.30 pm at the offices of State Street Bank, Luxembourg S.A. 47 Boulevard Royal, L-2449

. To approve the annual report incorporating the auditors' report and endited financial statements of the Fund for the fiscal year ended November 30, 1993. . To discharge the Directors and the Auditors with respect to the performance of

their duties during the fiscal year ending November 30, 1993.

 To elect the following seven persons as Directors, each to hold office until the next Annual General Meeting of Shareholders and until his or its successor is duly elected and qualified: R O Smart, CBE J Kent Blair, Jr S M Davies W H Henderson

Edward J Ledder

 To appoint Erust & Young, Luxembourg as independent auditors of the Fund for the fiscal year ending November 30, 1994. To transact such other business as may properly come before the meeting.

Only shareholders of record on February 28, 1994 are entitled to notice of, and to you at, the Annual General Meeting of Strareholders and at any adjournments thereof. Should you not be able to attend the meeting in person, please date and sign the nucleased proxy and return it before March 15, 1994 by fax and by simual in the unvelope provided to State Street Bank, Luxembourg S.A., 47 Boulevard Royal.

L-2449 Luxembourg, fax number +352 470204, tel +352 464010/255, to the stention of Petra Ries, to assure that a quorum will be present at the meeting.

By order of the Board of Directors Jean-Claude Koch

General Manager

European farmers face e stark choice before the end of the decade between tighter restraints on the use of land and chemicals or the complete abolition of price support.

This is believed to be the central message of a detailed strategy document to be considered today by the council of the National Farmers' Union of England and Wales.

The NFU's long-term strategy group, which produced the report believes the recent Cett deal will lead to another major shake-up of the Common Agricultural Policy before 2000. "Current CAP policies are

not going to increase consumption or bring down the produc-tion of cereals and beef sufficiently to allow the EU to meet its obligations under the Gatt settlement," it says. "EU farmers are approaching a fundamental policy choice."

This runs counter to assurances from the European Com-mission and the UK government that no further fundamental change will be needed in sectors subject to current CAP reforms to comply with EU commitments under

the Gatt deal. The report is understood to rule out the option of exit bonds, under which current agricultural support systems would end overnight and farmers would be compensated with a fixed, finite payment, which

would be tradeable. The strategy group says this could push up the EU's annual spending on agriculture - cur-rently Ecu29bn - by 60-70 per

MARKET REPORT

cent in the short term and would be politically unacceptable because it would lead to high rural unemployment.

It also dismisses the extension of output quotas - such as those on milk - to new sectors. saying this would be compli cated to administer and would conflict with the general reduction in government interven-

The choice, therefore, would be between tighter controls on inputs - for example, by increasing the amount of setaside land or reducing the amount of nitrogen used - or ebolishing the link between support payments to farmers and their production levels.

ter protected under a system of input controls, assuming these would continue to be accompa nied by subsidised exports and import tariffs. "But they may not be sustainable (beyond the 1990s) if future Gatt rounds force lower levels of border protection and export eubsidies." says the report.

The decoupling option would expose EU farmers to competition with world prices, putting the full burden of support pay ments on the taxpayer. The prices could fall by a further 30 per cent before reaching world price levels and that this might entail an unacceptably high level of compensation.

The NFU plans to consult its 100,000 members, as well as the government, the wider agricultural industry, and other European farming groupe, in the difficult task of achieving a consensus on future strategy.

helped to take the wind out of

London's sails but the May

price held on to \$10 of its rise

Coffee and cocoa make further gains

# 'Green' paper makers find themselves out of pocket

Buyers are reluctant to pay adequate premiums for the chlorine-free product, writes Bernard Simon

ment bas for years pressed pulp and paper mills to cut their use of chlorine, which they claim is necessary to produce strong.

bright paper. A growing number of producers, especially in Europe, have gone all the way. Sensing a strong resistance among their customers to environmentally harmful processes, some mills have spent heavily on processes that completely eliminate chlorine as a bleaching agent in pulp and paper production.

Questions are now being raised however, whether the producers have gone too far. Evidence is mounting that customers are reluctant - at least for the time being - to put

commanding the premium prices producers expected, and which are required to recoup their sizeable investments in a pioneering technology.

Doubts about the market's willingness to pay for the ultimate in environmentally. friendly paper are especially evident in North America, where the vast majority of producers is strongly resisting elimination of chlorine from pulp-making processes

Mr Metthew van Hook. vice-president of the American Forest and Paper Association'e pulp group, told the AFPA's al meeting last week that "the jury is still out on the

their money where their environmental impacts of totally chlorine-free (TCF) pro-Chlorine-free papers are not ceases themselves, not to mention their technological and

economic feasibility". Chlorine owes its popularity as a bleaching agent to its abil-lty to remove unwanted resins and fatty acids from wood pulp while leaving intact the cellulose fibres required for paper-

But chlorine is also a heavy polluter, adding toxic by-products such as dioxins and chlorinated organic compounds, known as AOXs, to pulp mill

It has increasingly been sup-planted as a bleaching agant by hydrogen peroxide, supple-mented in some cases by an ozone-bleaching process and by

Chlorine-free pulp is espe- forest-products group, says cially popular in Germany, where the environmental crusade against the forestry industry is strongest.

Germany, Switzerland and Austria consumed almost 1.9m tonnes of totally chlorine-free (TCF) pulp last year out of total European demand of about 3.1m tonnes. Jaakko Poyry, the Finnish forest-products consultancy, predicts that European demand will jump to between 5m and 6m tonnes by the end of the decade.

For the present however, supply exceeds demand. Prices for northern bleached softwood kraft pulp, the industry staple, are currently around \$450 e

Mr Martin Granholm, president of Kymmene, the Finnish

that the present premium for TCF pulp is only about 10 to 15 per cent, which is well below that forestry companies say they require to reimburse the extra expense of installing non-chlorine bleaching equip-

In a speech at last week's AFPA meeting, Mr. Granholm said it was "quite probable that some over-capacity will be created in Europe for TCF pulps. This is predicted to lower the price premium that TCF pulps

Only one mill in North America, e 700-tonnes-e-day facility in California operated by Louisiana-Pacific, at present produces totally chlorine-free pulp. One-fifth of lts 1993 out-

scheduled to be in continuous TCF production by September · gare pric

The mill's environmental benefits are undeniable. Its effluent has e hazy, pale yellow tint, compared to the coffee-coloured waste spewed out by mills using chlorine. The levels of toxic AOX and dioxins are so small as to be virtually

ummeasurable. But Louisiana-Pacific is far from recouping Its investment of about \$100m. Weak demand forced the mill to close during the last few months of 1993. It reopened in January and produced TCF pulp for just over a month before being shut down again on March 2. The company has yet to decide when it will restart.

#### Malaysian rubber and tin output decline further

#### By Kleran Cooke

Malaysia's declining role as a commodity producer is highlighted by statistics released here on 1993 rubber and tin production - two commodities in which, until fairly recently. Malaysta led the world.

The Malaysian department of statistics says the country'e total natural rubber production in 1993 was 1.07m tonnes, a drop of 98,000 tonnes, or 8 per cent, from the 1992 figure. Within that smallholder output declined 7 per cent while estate production dropped 12 per

Exports of natural rubber also dropped - by 9 per cent to

nearby prices touching three month highs late in the day.

Compiled from Renter

The decline in tin-in-concentrates production was sharper, by 28 per cent to 10,384 tonnes

in 1993. Malaysia'e is industrialising fast and commodities are pleying a decreasing role in the overall economy. Serious labour ebortages and low prices are also forcing people to abandon labour intensive agricultural activities.

· A surge in car sales in the US is being seen as the main reason for a rally in natural rubber prices which, after several months in the doldrums. reached a five-year high on far eastern markets last week. Traders say tight supply due to prolonged monsoon rains in rubber producing areas bas also helped prices.

### LINE WAREHOUSE STOCK (As at Monday's close) +250 to 2,559,825 -120 to 45,840 -5,325 to 532,150 -175 to 382,326 +842 to 134,828 +1,650 to 1,073,180

### Brazil seeks markets for orange juice

US imports are expected to fall further, writes Ronald van de Krol

Brazil, the world's biggest exporter of frozen concentrated orange juice with a commanding 86 per cent share of the international market, will need to step up its sales efforts in Europe and Asia to compensate for further declines expected in exports to the US.

Mr Rogerio Braga, president of Cambuby Citrus, one of Brazil's largest orange-processing companies, believes that the country's share of the US market is likely to fall to between 5 and 10 per cent by the end of the 1990s, partly as a result of the recently sgreed North American Free Trade Agreement. This compares with the heyday of Brazilian exports to the US in the 1970s, when 60 per cent of Brazil'e total production of frozen concentrated orange juice was sold in North America.

"Florida and Mexico, which has been granted special tariff conditions under Nafta, will certainly be able to supply almost all of North America's demand," he told an international fruit conference last sumption is still in single digweek in Rotterdam. Speakers et the conference. which was organised by the

port of Rotterdam and Rabobank, the Dutch bank that specialises in agri-business, said that the world's fruit eector also faced challenges caused by changes in the way fruit and fruit juices were marketed. Increasingly, fruit growers and food retailers were attempting to eliminate "middlemen" such as brokers, import agents,

packers and wholesalers. Mr Braga said the decline in crange juice sales to the North American market over the past few decades was probably irreversible, meaning that Brazil would have to concentrate on Europe, already its biggest market, and on new markets in

Asia such as Korea. Despite sharp increases in exports to Europe, there was room for further growth, be said, because consumption of fruit juice was barely half the US figure of 29 litres a person a year. In some countries, such as France, Italy and Spain, con-

Consumption in Asia is low in absolute terms but rising

"It took us 15 years to see Europeans consuming orange juice et half the levels of Americans," Mr Braga sald. "We might be able to get south-east Asia to that level in half that time." Besides shifts in trade flows,

Brazil and other fruit produc-ers are grappling with the shake-up in traditional relations between food retailers and food suppliers.

The rise of discount chains and "own label" products in established supermarkets has affected every link of the chain, from growers to packers. "Retailers are cutting their fat and have put tremendous pressure on the food processing industry," Mr Braga

At the Netherlands' largest supermarket chain, Albert Heiin, the trend was towards concluding partnerships directly with growers of fruits

and vegetables, said Mr Krijn Dorsman, executive vice-president of merchandising. "There are too many links in the chain between supplier and consumer." he said, noting that every link pushes up the retail

The Dutch supermarket group has therefore moved towards e policy of working with one exclusive partner for every product or product group in the fruit and vegetable sector. This partner undertakes to provide sufficient supplies to cover the supermarket chains'

Mr Fred Hofman, e board member of tha Bremen-based Atlanta Group, one of Germany's biggest fruit importers, told the conference he believed that importers and brokers would continue to have a role

to play. He added, however, that they would need to concentrate more on providing services, such as quality control and the arranging of "environmental-friendly" transport and

. .

BERTHALL TORS

#### the May position peaking at \$1,325 a toune. The rally

COMMODITIES PRICES

**COFFEE** futures maintained

Monday's enthusiasm early on,

BASE METALS **LONDON METAL EXCHANGE** ALUMINIUM, 99.7 PURITY (\$ per tonne)

	Cuels	3 (गर्धक
Close	1272.5-3.5	1301-2
Previous	1272-5	1296-7
High/low	1263	1304/1282
AM Official	1263-3.5	1264.5-5
Kerb close		1298-9
Open Int.	270,801	
Total daily turnover	53,833	
ALUMINIUM ALL	OY (\$ per tonne	<u> </u>
Class	1220-30	1235-40
Previous	1212-5	1227-30
High/low		1220
AM Official Kerb close	1210-5	1225-30 1230-40
Open int.	4,549	1230-40
Total daily turnover	660	
M LEAD (\$ per torme	1	
Close	453-4	467-8
Previous	448-50	463.5-4
High low	438.5	467/448
AM Official	438-8.5	453-4
Kerb class		465-6
Open int.	36,529	
Total daily tumovor	5,262	
■ NICKEL IS per tor	ne)	
Close	5530-5	5590-600
Previous	5495-505	5580-70
High/low	5410/5400	5610/5430
AM Official	5405-10	5464-5 5580-5
Kerb close Open int	50.927	500U-5
Total daily turnovor	12,319	
TIN (\$ per torne)		
Close	5430-40	5485-9
Previous	5425-05	5475-80
High Tow	5385	5490/5416
AM Official	5380-5	5430-5
Kerb close		5450-5
Open inf	19,833	
Total daily turnover	5,442	
ZINC, special high		
Close	929-30	947-8
Provious	930 5-1 5	949-50
AM Official	921.5 921-1,5	947/937 939-9.5
North close	321-1,5	939-9.9 945-6
Open int	112,092	
Total daily lumover	24,864	
E COPPER, grade A	(\$ per tonno)	
Close	1940-1	1955-6
Previous	1930.5-1.5	1944-5
High low	1922/1921	1959/1937
AM Official	1922-3	1938-9
Nort: close Open int.	229.612	1957-8
Total daily turnover	72.671	
I LME AM Official		17
LIME Closing E/\$		••
Spot 1 4925 3 miles 1 480		0
HIGH GRADE CO	PPER ICOMEX	

PRECIOUS METALS LONDON BURLION MARKET Prices supplied by N M Roths S pnce 386.00-386.50

+1 10

92.30 90.95 3,745 92.00 97.10 1,171

91.00 +1.00 90.45 97.24 59.16 91.00 +1.00 91.00

386.30-386.70 386.25 387.10 259,607 387.50-387.90 385 80-356.20 388.90-387.30 Lending Rates (Vs US\$)

Silver Pix Spot 3 months p/troy oz. 365.50 369.65 374.25 545.00 579.80 363.50 568.20 Gold Colm

Precious Metals continued M GOLD COMEX (100 Tray az.; S/tray az.) +0.5 - 62,362 18,077 +Q.4 39Q.5 38Q.7 6,545 +Q.4 38Q.5 39Q.4 4,189 +Q.4 385.6 395.1 12,532 105

sluggish New York market rally also continued, with

+0.5 408.0 408.5 11,194 2,219 +0.7 409.0 406.5 8,853 1,853 +0.7 408.6 408.0 1,183 87 +0.7 410.0 · 554 15 +0.7 411.5 · 598 44 22,386 4,214 PALLADRUM NYMEX (100 Troy oz.; \$/troy oz.) 134.50 +0.45 135.50 133.25 134.40 +0.45 134.25 133.75 133.90 +0.45 SILVER COMEX (100 Troy oz.; Cents/troy oz.) +1.5 547.5 541.0 1.434 +2.0 548.0 541.0 14 +1.5 550.5 542.5 72.231 +1.5 554.6 546.5 17,753 +1.5 554.6 596.5 4.396 +1.5 564.0 557.5 0,116

**ENERGY** ■ CRUDE OIL NYMEX (42,000 US gatts. \$/borrel 15.02 +0.11 15.03 14.86 16.018 15.16 +0.10 15.10 15.03 18,716 CRUDE OIL IPE (\$/barrel

13.73 44,580 HEATING OIL NYMEX (42,000 US galls.: c/US galls.) Lainet Cuy's price change 43.95 +0.64 Open 

Sett Bey's Open prior change High Low Int 137.75 +1.75 138.50 135.75 32.641 137.25 +1.25 137.75 133.90 18.392 939 138.75 +1.00 139.00 137.50 12.075 652 148.75 +1.25 142.75 139.50 5.367 205 143.00 +1.25 142.25 142.00 3.561 150 109.871 14.087 M NATURAL GAS HYMEX (10,000 mmBbL; S/mmBbL)

122,401 M UNILEADED GASOLINE HYMEX (42,000 US galls.; c/US galls.) +0.67 45.70 +0.32 46.55 45.80 21,327 45.40 45.85 7,438 46.05 45.80 5,436

GRAINS AND OIL SEEDS WHEAT LCE (C per torne) Sett Day's price change High Lour 104.65 +0.40 104.65 103.80 170 106.25 +0.10 106.25 105.15 1,538 106.65 -0.10 106.50 106.00 504 247 852 564 93.50 +0.05 93.40 93.00 95.40 +0.20 95.20 95.20

14.43 74.807 36.779 M SOYABEAN OIL CET (60,000 be cents/b) 14.86 16.015 2.779 13.73 44,560 17,528 13.39 63,544 26,013 13.39 22,116 7,472 13.46 11,620 1,988 13.56 7,983 1,746 13.70 4,257 602 160,438, 56,621 M SOYABEAN MEAL CET (100 tons; \$/ton) M POTATOES LCE (E/torne)

Apr May Jul Oct Jun Total Latest Day's Gpen price change High Low left 2,075 +0,025 2,060 2,040 15,733 2,120 40,004 2,125 2,100 3,855 2,115 +0,001 2,135 2,105 8,962 2130 +0.004 2138 2120 9.509 2150 +0.003 2155 2140 16,414

45.70 44.70 31,432 10,807 45.35 45.435 7.147

+1/0 333/0 329/4 1,855 1,115 +2/4 338/6 334/0 80,780 11,430 +2/8 327/2 322/4 86,523 16,275 +3/4 329/2 3346 17,445 1,140 +2/2 337/4 333/6 22,265 2,870 +0/2 338/0 338/6 15 Hay Jay Sep Dec Mar Total 221,100 35,830 M MAIZE CBT (5,000 bu min; cents/56to buehal) -3/0 280/0 277/0 10,325 12,945 -2/6 227/0 284/0 905,775 136,365 -2/4 290/4 287/6 560,905 70,720 -1/4 278/2 278/0 128,995 8,835 -1/2 288/0 294/0 287,785 53,890 277/2 272/0 M BARLEY LCE (C per torre) +0.10 105.25 104.75 53 11 32 105 139 88970 685/0 9,225 0,430 69274 687/0,310,320,244,420 6944 888/0,229,885 77,950 685/4 880/4 34,220 3,450 676/0 665/4 18,270 1,700 25.51 +0.07 26.57 26.25 1.052 1,346 25.44 +0.03 26.49 26.15 25,351 7.890 26.33 +0.04 26.39 26.05 25.347 2,716 27.96 +0.03 26.00 27.70 7,810 55 27.96 +0.00 27.80 27.38 7,725 464 26.85 +0.09 26.95 26.80 5,440 366 748 548 2 183.5 -5.2 182.0 177.0 200.5 -9.2 207.9 194.0 130.0 -35 239 133.0 131.0 1,511 FREIGHT (BIFFEX) LCE (\$10/Index point) 300 1,110 267 590 241 1235 1235 1120 1285 1365 1303

Minor Metals European free market, from Metal Bulletin. \$ per th in warehouse, unless otherwise stated (ast week's in brackets, where changed, Autimory; 99.6%, \$ per tonne, 1,750-1,810 (1 ket, 99,8%, 22,50-23,50 (22,00-23,00); 99,3%, 17,80-15,70 (17,00-15,00). Maretury: mim. 99,99%, 5 per 76 to flass; 90-100. Molyhote-ntum: drumened molybdic oxide, 2,80-2,85, Selenkurs: min 99,5%, 3,80-4,55 (3,90-4,55). Turgston dress etandard min. 65%, 5 per torne unit (10kg) WO<sub>2</sub> cff, 30-43 (23-43). Vanadium: no. 95%, cf. 1,35-1,45. Uramium: Nuexco exchange value 7 00.

+12 900 947 289 129 977 961 22,453 8,100 967 971 15,186 2,631 981 11,175 978 984 17,842 808 1010 22,730 868 105,785 12,551 +10 +12 +10 1005 M COCOA CSCE (16 tor 1225 56 31 1232 41,812 13,613 1254 18,870 4,200 1275 8,878 474 1303 6,487 212 1340 0,861 305 -15 -15 -13 -9 -7 1252 1272 1290 1321 1366 1236 1258 IN COCOA (ICCO) (SDFTs/torres) New 14 Delty \_\_\_\_\_\_ May 25 10 day artsa Price 958,40 E2.27 E COFFEE LOE (\$/tome) +8 1313 1307 387 30 +11 1325 1306 16,263 2,495 +8 1320 1305 10,509 1,390 +5 1321 1305 4,892 347 +5 1322 1306 3,384 335 +4 1316 1305 5,874 354 1311 1309 1308 1308 IN COFFEE 'C' CSCE (37,500bs; cents/be) 78.50 -0.20 80.25 78.00 209 47 81.40 - 81.55 80.60 34,171 11,835 82.75 +0.10 82.85 81.90 84.25 2,002 84.05 +0.10 85.16 81.15 5,470 348 85.16 +0.10 85.10 84.50 35.95 162 88.05 +0.15 88.05 85.90 1,930 2 Mar Sury Jul Sup Dec Hear Total M COFFEE (CO) (US cents/pound) Mar 14 Comp. daily \_\_\_\_ 15 day average M No7 PREMIUM RAW SUGAR LCE (conts/fbs) -0.24 -0.15 -0.08 -0.05 12.31† 12.70† 12.10† 12.05† 1,268 2,738 130 4.136 R/A -2.00 307.00 302.00 8,201 -2.30 309.50 307.00 5,098 -2.30 309.00 307.50 3,860 -1.40 306.00 304.50 125 -1.5 - 202 18,107 334,00† 328,50† 308,50† 303,70† 303,70† ■ SUBAR "11" CSCE (112,0000bs; cents/bs) 12.13 4.21 12.21 12.01 12.05 12.758 12.29 -0.13 12.33 12.16 32.461 5.557 11.79 -0.13 11.65 11.73 25.559 3.794 11.31 -0.11 11.60 11.30 11.534 2.95 11.29 -0.11 11.30 11.30 15.33 157 11.29 -0.10 11.27 11.35 1.072 64 May Jul Oct Duc Mar Hay Total 108.16 -0.10 108.40 168.90 111.60 -0.50 112.40 111.10 -0.30 114.75 113.60 5,332

Mar 13 month ago 227.34 227.29

INDICES ■ CAB Futures (Base: 4/9/56=100)

Bec Feb Total 73.400 +0.025 73.800 73.400 853 46,750 -0,175 47,250 48,700 10,129 \$1,500 -0,050 53,900 53,400 10,532 \$2,265 +0,100 53,175 \$2,825 3,212 \$1,575 +0,100 51,750 \$2,825 3,212 \$7,825 +0,125 47,750 47,550 1,825 48,700 +0,100 48,700 48,450 1,825 M PORK BRILLIES CME (40,000lbs: conts/lbs) 54.750 +0.550 55.200 54.300 151 55.550 +0.525 56.300 55.200 6.089 56.725 +0.600 58.375 55.250 2.663 53.575 +0.425 54.100 53.200 58,825 -0.325 58,950 58,800 LONDON TRADED OPTIONS Strike price S torme --- Calls ---Аид 78 90 51 COPPER (Grade A) LAKE COFFEE LCE BRENT CRUDE IPE LONDON SPOT MARKETS Dubei Brent Blend (dated) Brent Blend (May) W.T.L. (1pm est) \$12.50-2.60w \$14.19-4.22 613.59-3.60 \$14.71-4.74 ■ OIL PRODUCTS NA \$150-162 \$139-140 \$74-76 \$132-134 \$155-161 Heavy Puel Os Naphtha Jet Puel Petroleum Arque Estimet Gold (per troy oz) \$ Silver (per troy oz) \$ Platinum (per troy oz.) Paladium (per troy oz.) 541.5c \$403.85 \$183.25 Copper (US prod.) Lead (US prod.) Tin (Kuala Lumpur) 95.00c 35.00c 14.08c 251.50c Unq. 127.88p 131.14p 80.08p Tin (New York) Zinc (US Prime W.) 5,332 325 2,988 121 1,269 73 1,517 22 19,363 1,523 Cattle (live waight)† Sheep (live weight)† Pigs (live weight) +0.05 118.30 118.00 2,088 -0.05 114.70 /14.70 1,269 -0.45 118.05 114.75 1,817 Lon, day sugar (raw) Lon, day sugar (whe) Tato & Lylo export \$299.50 Barley (Eng. feed) Maize (US No3 Yellow) Wheat (US Dark North) Unq Unq £190.0x Open interest and Volume data shown for contracts traded on COMEX, NYMEX, CST. Rubber (Apr)\* Rubber (May)\* Rubber(KL RSS No1 Apr) TYCE, CME, CSCE and IPE Crude Oil are one 244,50m Coconut Oil [Phil)§ Paim Oil (Malay.)§ Copra (Phil)§ \$530.0x ■ REUTERS (Base: 18/9/31=100) Soyabeans (US) B0.80c Mar 14 month ago 1824.5 1779.1

CROSSWORD MEAT AND LIVESTOCK No.8,405 Set by HIGHLANDER IN LIVE CATTLE CME (40,000 the; cents/the Sett Day's Dipte Low Int Vol 76.375 -0.200 78.975 76.350 35.881 74.000 -0.175 74.350 73.975 23.988 72,625 -0,075 72,675 72,550 12,156 73,800 +0,050 73,900 73,850 2,265 38 25 37 61 ling identifies itself? (7) 5 Courageous lover (7) 6 Ethnic music only heard (4) 7 Brontë lifts fruit before end of

1 Company working for stable conditions underfoot (4.5) 6 Second wave yields reproduc-tive cells (5)
9 Publish in secret initially and charge the heirs (5)
10 Vote takes university into disperhaps in New York (9)
13 Analytical help over revised persing contamination (9) A last run at wild insects (10) 14 Main dish? (7) pouch (9) 16 Oriental case for grammari Travel seated in explosive missile (7)

17 She puts actress's clothes on plece of furniture with draw18 A sympathetic relationship source of nautical weather warning (7)
Refrained from taking abandanad port (4)

21 Smith's equipment is fake (5)

23 Try two different directions
for example (5) doned port (4)

Copies shuffled and spread by church leaders (10)

for example (5)

24 Quietly take food and fuel (4)

+0.275 +0.220 +0.200 +0.300

-0.85 -3.0 +0.65 +0.25

-1.00

+2.83° +9.01° -3.38°

-1.00

-0.60

25 Run off and seize hold of over turned vessel's propulsion aid 26 Prunes in good condition on Saturday (5) 27 Patron of hotel in Prague stays there regularly (5) 28 They care madly about royal

1 Loud is not commonly lacking in volume (5) 2 Ray waves one to come up again (9) 3 Immature family has an effect inimical to the environment (10)

Solution 8,404 LDE OPRH DIVES SITUATION EAULISM ELIO 

July (5)

said (4-3)

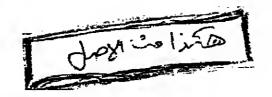
8 Brown follows fellow bowler

costing (10)
Pass between peaks with
hunting spoils in travelling

ans stimulating the memory

19 Descriptive of lens angle, I

Of broking and jobbing the Pelikan's fond, See how sweetly he puts your word onto bond. Selikan (\*) **JOTTER PAD** 



MARKET REPORT

# Share prices respond to strong gains in bonds

By Terry Byland, UK Stock Market Editor

Strong gains in British government bonds and further indications that economic recovery is showing through in corporate results laid the foundation for a 34 point advance in the FT-SE 100 Index yesterday. Trading volume gathered pace as the stock market moved ahead to a confident close.

Investors were encouraged by good news on US inflation, by confidence ahead of the Bundeshank's money market repos tender today and by another round of dividend increases from UK companies. The final reading put tha FT-SE 100 at 3,267.4, with some analysts predicting that the 3,300 mark could be challenged again before the end of the week.

A week heavy with important economic statistics saw the opening of yesterday's session dominated by prospects for the US producer price index, announced at midsession in

News that the core index had risen by only 0.1 per cent in February, reducing the likelihood of a tightening in Federal Reserve credit policy, was well taken in Europe. UK equities, which had made modest progress during the morn-

ing, began to move up strongly behind gains of more than a full

point in long-dated government

securities. On the domestic front, the switch in market sentiment in favour of signs of economic recovery was encouraged first by news that UK construction industry orders had jumped by 16 per cent in the three

Account	Dealing	Dates
*First Desiren: Feb 26	Mor 14	Mer 26
Option Declarations: Mar 10	Mar 24	Apr 7
Last Dealings: Mar 15	Mar 25	Acr 8
Account Day: Mer 21	Apr 8	Apr 18
"New time dealings business days earlier.	may take	place from two

months to January, and then by strong profits and dividend announcements from the construction and huilding sectors.

An increase of around one-third in the dividend payment from Wolseley, Britain's leading builders merchant, reinforced market confidence that higher payouts will pro-vide the drive for the stock market. Little heed was paid to the latest

distributive trades survey from the

Confederation of British Industry, which suggested a slowdown in the rate of retail sales increase.

LONDON STOCK EXCHANGE

Store and consumer issues mostly followed the market trend, as investors took the view that economic recovery will provide the basis for higher levels of consumer spending. Heavy trading in Barclays reflected continuing dividend optimism. The strength of sterling failed to deter shares in the big exporting firms.

The FT-SE Mid 250 Index gained 16.8 at 3,902.5 as huying spread through the list of building and construction shares, many of which are outside the FT-SE 100 stocks. By the end of the session. Sean volume, at 616.1m shares, showed a 10 per cent increase from Monday's total. Retail, or customer, husiness on Friday was worth £1.25bn. While a little helow last week's everage, retail

struction sector analysts.

to close a net 8 off at 210p.

Large MGN trade

Mirror Group Newspapers

experienced exceptionally

heavy turnover of 11m shares

as the merket responded

enthusiastically to the latest

figures and bought the stock

up 7 to 197p.
A lift in advertising revenues

and trading margins, together

with far better than antici-

pated profits, saw forecasts raised to between £82m and

£85m for 1994. The only con-

cern was the slide in circula-

tion following the price war

started by News International.

The two English power gen-erators, PowarGen and

National Power, were among

the best performers in a gener-

ally strong utilities area follow-

ing a strong buy recommenda-

tion published by NatWest

Securities. The broker's strate-

gic assessment of the two com-

paoies focused on the

long-term attractions of both

companies. Upgrading tha

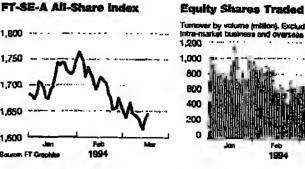
stocks to a buy NatWest high-lighted strong dividend

growth, lack of regulatory

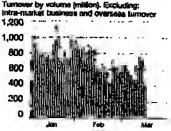
husiness in equities remained healthily profitable for Londonbased securitles firms.

While sounding fully confident last night, market strategists pointed out that today will bring significant tests for shares and bonds in the form of the latest data on domestic retail sales, unemployment, average earnings and unit wage costs. All will be scanned for evidence of progress in the domestic economy, as well as for inflationary

With Wall Street a shade lower at the London close, it was clear that attention had switched to Germany and that the UK market will focus closely today on the progress and outcome of the Bundesbank repos tender, where some analysts hope to see rates trimmed more sharply than they were last week.



Key Indicators	3		
Indices and ratios			
FT-SE 100	3287.4	+34.0	F
FT-SE Mid 250	3902.5	+16.8	F
FT-SE-A 350	1655.5	+14.8	F
FT-SE-A All-Share	1646.57	+13.79	1
FT-SE-A All-Share yield	3.51	(3.54)	L
Best performing s	ectors		1
Building Materials		+2.3	1
Water		+1.8	2



dices and ratios			
-SE 100	3287.4	+34.0	F
-SE Mid 250	3902.5	+15.8	F
-SE-A 350	1655.5	+14.8	F
-SE-A All-Share	1646.57	+13.79	10
-SE-A All-Share yield	3.51	(3.54)	ᅜ
est performing s	ectors		W
Building Materials		+2.3	1
Water		+1.8	2
Tobacco			3
Cont (Note: Inches			

#### T Ordinary Index T-SE-A Non Fins p/e 21.94 (21.88)T-SE 100 Fut Mar +39.0 O yr Gilt yield ong gitt/equity yld ratio: (7.18)

#### Vorst performing sectors Other Services & Bans ... Household Goods .. Building & Construct ... +1.5 5 FT-SE SmallCon ex IT

# **Builders**

nate and k

SWORD

orders rose 16 per cent in the quarter ending on January 31, plus stunningly good interim results from Wolseley, the UK's leading huilders merchant, saw tha shares spearhuilding materials and mer-

the most optimistic forecasts in the market, while the 33 per cent rise in the dividend compared with most expectations of an increase in the region of 10 per cent. BZW hoisted its current year forecast for Wolseley from £153m to £187m and

its 1995 estimate to £230m. Mr Howard Seymour, building analyst at BZW, said Wol-seley's "phenomenally good figures" confirmed the strong recovery coming through in the light end of the building market.

Wolseley finished 66 higher et e record 968p. Since their elevation to FT-SE 100 status last June, Wolseley shares have climbed 46 per cent, com-

pared with a 12.3 per cent advance by the 100 index.

#### **Builders strong**

Wolseley's excellent results were followed by news of a near four-fold profits increase from Heywood Williams, the building products group. Marley is also expected to report humper profits with its figures this morning. A big line of Marley stock was taken out of the market last week, prompting speculation that the figures would be much better than the market expects. Most predictions for Marley point to pretax profits of £34m-plus. Travis Perkins, the builders

more than doubled pre-tax profits in excess of around £20m tomorrow.

Marley rose 4 to 204p, Heywood Williams 7 to 437p, Graham Group, floated at 183p only a week ago, 8 to 214p, Meyer International 29 to 545p and Travis Perkins 13 to 359p. At the heavy end of the huilding msterials sector, hopes of an early reduction in Garman interest rates boosted

merchant, is expected to reveal

RMC, 13 ahead et 972p. Housebuilders, on the other hand, were unsettled by what was said to have been e flat and uninspiring post-results

meeting with Wimpey and con-

TRADING VOLUME

8,000 2,000 2,000 602 806 806 4,200 540 221 251 258 8,200 1,200 2,100 8,200 12,000 1,000 1,000 1,000 1,100 1

Redland, up 9 et 571p, and

#### **NEW HIGHS AND** "We were expecting a bullish statement on househuilding LOWS FOR 1993/94

hnt got a rather dismal appraisal," said one analyst. NEW HIGHS (48). BUILDING & CNITTIN (1) Buil Bros., BLDO Current year profits estimates of up to 150m were said to have MATLS & MCHTS (II) Alamaca, CRH, Epwin, St. Gobalh, Wolseley, CHEMECALS (4) Alzo, Beyer, Hoschat, Porver, DISTRIBUTORS (2) Extins been trimmed back to £45m Holekow, Sanderson Bramell, ELECTRING BLECT EQUP (3) ASEA B, Eurothern, For and less in some cases. Wim-Technology, ENGINEERING [1] Atlas Copes B. ENG, VEHICLES [1] Volumeger, EXTRACTIVE pey shares dropped to a session low of 206p following the analysts meeting, before steadying

Technology, EMERINEEPENG [1] ARRIS CAPER IS, END, VERTACETIVE INDE [7] Angle Amer. Cool, Int'l. Musto, Inharmantung Considi., Michaion Gold, NSA, Vagasi, Wallacia, INSERANCE [1] Sedgavich, INVESTRAINT TRUSTS (2) Aberlorin Spie Lovel Cop., INVESTRAINT TRUSTS (2) Aberlorin Spie Lovel Cop., INVESTRAINT COMPARISES (3) Indonesia Equity Fcl., Korea Libertel Wan, Lyderfourg, LESSURE & HOTELS [4] Bur & WAT A, Conside Communications, Cockfords, Stanley Labours, MECHA [3] Holmes Manchant, Staepy Labours, MECHA [3] Holmes Manchant, Staepy Labours, MECHA [3] Holmes RAMANCAL [5] EST, Energy Capest Witz, PRTING, PAPER R PACKE (3) Bund; Sept., RETALERS, FOCO [1] Gregge, RETABLERS, GUYERAL (1) Soriabys, SUPPORT SETTINE [2] AMTRE, Manpower Inc., TESTINE 23 APPAREL (1) Claramont Camprine, AMERICANS [1] Anglo Amer. India.

552p and National Power 121/4

20 to 546p, Severn Trent 15 better at 579p and Wessex Water 15 higher at 6671p, were the pick of the water stocks. The placing of a block of 5.9m Vodafone shares at a discounted 564p hy house broker UBS, to finance the acquisition

of a one third stake in General

Mobile Communications from

Mary Ang Mor May Ang Nov

280 12 17% 22 9% 14% 18 300 4% 5% 14 22 28% 30 130 12 18 23% 10% 16 20% 140 7% 14% 18% 17% 22% 25% 200 17% 25 28% 6% 11 17% 220 7 15 18% 17% 23 28%

share. PowerGen rose 13 to Generale des Eaux of France,

on Bramail, ELECTRING &

Glists, Lowels, SOUTH AFRICANS (1) Anglo Arrel, Inds., MEM LOWS (22).
GLTS (R) Trees, Spc 1994, Each, 12\*-pc 1994, Each, 1979, 1994, Each, 1979, 1994, Each, 1979, 1994, Each, 1979, 1995, Trees, 1979, 1995, Trees, 1979, 197

to 463p. North West Water, up

saw Vodafone dip 4 to 571p. Saatchi & Saatchi slipped a penny to 141p in spite of returning to profitability. The market was disappointed by

the group's margin growth. S.G. Warburg cut Its 1994 profits forecast by 10 per cent to The initial edvance in electricals group Delta after the group revealed a higher than expected dividend increase

proved short lived after hrokers downgraded current year profit estimates. Analysts were particularly concerned by the continuing pressure on profits in the cahle industry. The shares gave up 7 to 522p. The list of brokers downgrading included Strauss Turnbull which trimmed its estimate by £4m to £59m. Several

brokers advised investors to

switch out of Delta and into

BICC where the shares put on 9 to 410p. UK airports operator BAA closed 13 ahead at 1001p, after a positive note on the stock from NatWest Securities. The securities house which expects 1994 profits of £324m sald: "the company continues to produce traffic growth marginally ahead of our expectations giving us confidence in our full

year profits forecasts." Analysts returned positive from pre-close season meetings with Granada, helping the shares climh 6 to 561p amid profit forecast upgrades. Euro Disney shares opened sharply down following the weakness seen after tha theme park group announced a financial rescue package on Monday.

They later rallied, ending the day 5 ahead at 395p. Reports of a further round of

hurt Unigate and Northern Foods, the shares sliding 3 to 148p and 2 to 218p respectively. Tesco, off a penny at 223p, was said to he applying the renewed pressure on suppliers, with expectations that the other hig operators Argyll, 3 ahead at 25-)p, and J Salnsbury. 10 foward at 386p, are likely to follow sult. The news follows weekend reports that Asda, up a penny at 60%p, was pressuring suppliers to turn price promotions into permanent price

#### Other big moves

Elblef bounced back 41/4 to 21p after its leading share-holder Gedma Investments was believed to have successfully sold its 7 per cent stake in the photo frame and clock maker. Research based pharmaceuti-

cals group Scotle Holdings added a further 16 at 271p as investors focused on the new drugs in development. Talk of stakehuilding in Owen & Rohinson, the loss-

making jewellery and sports footwear retailer, saw the shares climh 8 to 34p. Concern over a hoardroom tussle saw Takare, the nursing

home group, fall 17 to 249p. **MARKET REPORTERS:** Christopher Price, Joel Kibazo, Peter John, Steve Thompson.

■ Other statistics, Page 21

### led by Wolseley

News that UK construction head a general upsurge in the

chants sector.

bonds, helped stock index

futures to a premium as the

were around £17m higher than

EQUITY FUTURES AND OPTIONS TRADING Continuing hopes of a reduction in interest rates, and e firm performance in

March contract pulled the underlying cash market higher, writes Joel Kibazo. The opening of the Liffe March contract on the FT-SE

III FT-SE 100 INDEX FUTURIES (LIFFE) 225 per full index point (APT) Open Sett price Change High Low Est, vol Open int. +39.0 3227.0 3267.0 IN FT-SE MID 250 INDEX FUTURES (LIFFE) £10 per ful index point +12.0 3915.0 3900.0 +8.0 3834.0 3819.0 IN FT-SE MID 250 IMDEX FLITURES (OMLX) £10 per full index point

■ FT-SE 100 INDEX OPTION (LIFFE) (\*3266) \$10 per full index point 

Cuts 8,677 Puts 13,278 IN EURO STYLE FT-SE 100 INDEX OFTION (LIFFE) £10 per full index point

FT - SE Actuaries Share Indices

3076 3125 3175 3225 3276 3325 3376 3428 showed there had been no trade in the FT-SE Mid 250 251 11 182 172 123 28 48 432 61 6512 38 52 274 1272 13 1679 130 132 274 1272 13 1679 130 132 274 1279 13 16912 38 128 128 675 571 144 34 1792 2794 4812 1448 83 98 132 38 IN EURO STYLE FT-SE MID 250 INDEX OPTION (OMLX) \$10 per full index point

100 at 3,227 was 6 points below the previous night'a close, which initially led dealers to expect a quiet session. But those early doubts soon faded, leaving March to advance for most of the session, with "solid US buying" said to have been prominent in the first

part of the day. Having touched the day'e high of 3,278, the contract finished at 3,272, up 39 from its previous close and at e 6-point premium to cash. Voluma at the official close was a healthy 16,480

The Liffe Mid 250 March contract ended at 3,907 after business of 285 lots, and June, which becomes the market leader next week, saw volume of 225 contracts. On the OMLX, the screens showed there had been no

TION (LIFE	E) £10 per t	ul Index po	olinik			JMLX,				Caracterit Carteri Couves, †	2,500 1,100	908
			76 84	25 +		there the				Conts Verdirt Comm. Uniont	464	900 200 500
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8 43½ 60 28 67½	651 <sub>2</sub> 38			167 CI 179 <sup>1</sup> 2	ontract		166- 4-			Courte, ACHT Dolouty	1,500	568 488 987
63	30	132		1041-		ver in L			-	Do La Rue	252 342 1,000	907
1211312	1341	2 156	8312	217 0		improv				Ottone Eastern Elect.	408	213 631
resolutes show	us based	an selliement	priots.			h 21,79				East Michard Bact. Eng Chira Claye	408 505 1,900 254 221	631 609 522
v A	-					the FT				Emergries Off	254	415
A OPTION	(OMEX) EIG	bear program	Dex Doint			13 in th			SE	Europernal Units	1,400	541 205 131
				-		adbro				Fecne	2.200	131
1927 1	2022 42	29212 12	2			stock o			a	Foreign & Col. LT. Forei	684 1,900 1,900	290 295 606
3 1981 <sub>2</sub> 71		3-2	2	to	otal of	2,309 t	rades.			Gers Accident	1,900	606
			-		44				_	General Elect †	2,500 2,700	319 <sup>1</sup> 7
are inc	ces					1	he L	KS	eries	Glymand	375	
-		_	_	_	_					Grandet Grand Mat.†	2,800 3,500 1,800	551 486
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May 15 (	chge% Ma	14 Mar 1	1 Mar 10	600	yleld%	yield%	ratio	ytd	Fletum	Grev Guinness	435	193 567 509 868 392 281
3267.4	+1.1 32	38.4 3191			3,70	5.74	21.21	23.12	1207.27	HS8C (75p ehet)	1,900	868
3902.5		86.7 3857			3.14	4.96	24.90		1421.32	Herenori Hereori	15,000	392
3918.2		00.9 3872			3.23	5.29	23,49	14.40	1422.17	Hawlence Croslield	196	211
1655.5 2011.85		40.6 1621 1.70 2005.			3,57 2,75	5.55 8.76	21.97 83.19	8,11	1251.44	History	3,000	211 302 185 332 179 547 565 619
1992.18		2.48 1990.			2.88	4.15	30.60		1520.10	IGH.	250	352
1646.67		2.78 1815.			3,51	5.43	22.50			Inches on T	3.600	547
hare										Johnson Matthey Ninglights   Kwit Sare	208 954 194	565
	Day's			Year	Div.	Eam		Xd ac		Kwik Sare	194	612
Mar 15	chga% Ma	14 Mar 1	Mar 10	980		yleki%_	razio	yso	Paturn	Land Securities	2,000 458	706
2531.12		2.97 2506.			3.50	4.91	25.25		1000.97	Laporte Lagal & General†	2,000 458 398 447 548	207 706 807 493 420 988 131 620
3968.30		4.46 3568.			3.26	4.45	26.85 24.32		1077.27 983.34	Lloyde Abbey Lloyde Bentif	548	420
2433.11 1849.94		6.37 2418. 18.35 1631.			8.71 3.23	5.12 3.88	33.10	0.00	1048.00	Lloyds Switt	3.700	988
		6.06 2139.			3.43	3,65	33.17		1082.85	Landon Elect.	2,500 480 3,300	(20)
2174.78 1452.93		68.06 2139. 10,28 1462.			2.45	3.06	42.27	261	1113.56	Loreto	979	212
2302.06	+2.3 225	0.58 2230.	88 2258.73	1512.70	3.06	2.54	54.11	1,62	1055.06	MEPCT	979 616	495
2473.50	+0.4 246	3.87 2460.	86 2461.84	2156.10	3.74	4.64	27.07	20.00	1073.60	METARIE SOME	2,500 68	170 730 425
2173.46	+0.7 215	9.09 2131.	63 2138.25	1879.60	4.23	4.23	30.84		1068.86		3 100	654
2119.84		13,25 2068. 14,68 1952.			3.47 2.77	6.01 2.92	20.41	2.50 8.73	1008.09	Michands Elect. Marrison (Wm.)	664	
1971.92 2350.27		14,66 1452. 18,96 <b>23</b> 54.			4.43	3.16	42.19	20.61	1116.91	NFCT	547 664 1,300 3,700	256 <sup>1</sup> 2 487 453 223 546 655 218
3032.80	+0.5 301	8,09 2998.	29 3034,48	2312.80	2.69	4.11	29.45	1.60	1185.21	National Power?	1,200	453
1877.43	+0.7 196	3.45 1929.	57 1928,41	1887.70	3.32	4.97	25.18	1.58	1089.79	Horth West Water	1,200	546
2885.47	+0.8 288	1,28 2839.	20 2662.89	2939.10	3.99	7.03	18.77		967.11	North West Water† Northern Sect. Northern Foods†	1,300 296 844 540 424	218
2251.04	+0.7 223	6,30 2210.	55 2248.05	2182.30	4.06	7.63	16.07	11,01	987.00	NOTHED	540	859 680
3132.32	+0.8 310	7.24 3076	21 3708.61	2909.00	3.38	5.85	19.96	19,93	1025.39	Persont P & Ot	3.100 2,100	650
2348.11 2714.29		2. <b>60</b> 2337. 0.51 2727.			3.16	8.76	17.13		948.38	P & O† PBington PowerGen†	2,100	1857
1784.42	-0.2 179	7.91 1798.	27 1807.49	1801.50	3.09	5.53	21.55	2.98	1012.22	Prudentialf	1,400 2,500	
3087.38	+1.2 905	0.65 3025.	61 3040.03	3283.80	4,07	7.18	16.24		961.14	PMC† FrZ†	174	972 857 225
4077.10		5,79 3947.			5.17	8.10	14.50	0.00	878.05	Pacel	1,900 1,000 1,500	425
2101.60	+0.7 208	6.34 2070.	07 2094.11	1822.70	2.80	5.30	22.97	6.08	1010.99	Receil Rents Ors.† Receils & Colment Rectanof	361	651
3095.29		3.89 3071.			2.75 3.08	4.88	24.80 27.56		1047.96 1127.80	Rediand Pool Int. 7	1,500	571
2325.66		4,45 2286. 8,58 3226.			1,92	3.99	29.83	14.30	1115.28	Rentokit)	254	255
3261.09 1654.80	+1.2 183	4,66 1504	42 1623.62	2150.70	3.74	8.55	12.86	1.93	960.97	Routers† Rollin Royce†	1,400	185
1758.49	+0.9 174	2.11 1729.	77 1744,32	1510.50	2.71	5.27	23.79	4,34	920.06	Rolls Reycet Ryl Bl. Scotland	807	105 436 278 385 1060
1738.60	+0.2 173	5,50 1725	36 1750.52	1576.20	2.29	6.00	17.25	1.95	1037,52 896,25	Royal trausmost Scinatury	1,500	386
2594.23	+0.8 257	2.37 257A	14 20U5.11	12/2 00	3.24	3.49	33.21 40.03	5.62 0.97	1032.48	Schroders?	<b>57</b>	1000
1226.60		5.71 1258.			3.87					Scot Hydro-Dect	1,100	545 381 408 119
2449.18	+1.0 242	5.04 2375.	12 2432.16 20 2222 22	2787.60	4.08 3.54	7.12 10.59	17.34 11.80	5.60 15.85	944,25		2,200 476	118
2337.94	+1.1 231	3.08 2237. 0.65 2006.	63 6636.7U NO 20190 12	1990 80	5.74	10.39	11.QU		921.53	Sears† Badgwick Seaboard	3.400	212 <sup>1</sup> 2 353
2085.73 2152.93	+0.4 214	3.97 2114.	18 2180.60	1679.50	3.67	5.63	21.71	0.00	895.42	Seeboard Severn Trent	476 3,400 657 736	243
1904.13	+1.9 188	7.73 1842	61 1652.70	1803.20	4.86	13.35	TB.B	3.48	916.15	Short Transport	3,200	809
1772.1S		7.87 1741.			3.62	5.58	21.94	8.87	1223.32	Slebert Slough Esta	1,700	269
		2,73 2309.	_		3.73	5.41		29.00	924.20	Series (W.H.) A Screen & Haphow? Smill Beactern?	329	14417
2379.38 3082.39	+1.1 235	2,73 2309. 6,63 2963.	78 3019.60	2282.80	0.49	5.18		55.86	911.57	Smid Beacham)	5,600 1,200	300
1357.13	+0.7 134	7.23 1329.	92 1348.28	1358.00	4.70	8.03		13.32	904.96	Smith Seechom Uts.† Smiths lade,	374	300 305
2555.40	+1.2 252	5.29 2488	84 2516.97	2602.70	4.58	4.76	26,44		940.20	Southern Elect.†	182	494 697 704
2989.72	+0.8 296	7.20 2852.	74 2981.84	2282.40	3.05	7.89		11.44	879.92	South Water Bect.	27	704
2033.18	+0.3 202	7.79 1999.	09 2013.96	1976.60	9 18	8.48		12.37	1062.65 958.68	South West Water South West, Elect. Southern Water	272	646
1717.54		1,19 1698.			3.57	3.26	40.70	2.80		Southern Weller Standard Chartel \$	169	646 573 1082
2936.63		<u>8.52 2912.</u>			2.18	1.78	_	14.80	975.44	Street curse	1,400 523	227
1646.57	+0.8 168	2.78 1815.	12 1635.49	1424.79	3.51	5.43	22.50	10.13	1266.47	Sun Allence†	2,000	325 239 362
										TI Group†	1,100	362
										TSB	4,100	242
10.00	11.00	12.00	18.00	14.00	15.00	16.1	O_Hig	t/dey	Low/day	Terrino: Tata & Lyta Terrior Woodsow	3,400 964 89	430
	3244.5	3250.0	3250.8	3254.0	3259.6	3268	5 32	69.5	3230.6	Taylor Woodrow	69	192 490 164 223 536 1144 265 109
3244.3 3896.2		3897.0	3897.0	3896.0	3896.6			02.5	3887.0	Toeco† Thurses Water†	6,400 991 643 5,100	536
3896.2 1645.8		1648.2	1848.5	1649.8	1852,1			58.1	1839,7	Thorn Eleft	643	1144
1040.0										Tornitres Trainings House	1.900	109
										Unigers Undevert	384 1,800	348 1085
										United Biocuts†	691	333
Indust	ry bask	ie <b>t</b> s								Utd. Howepapers Vocations?	1,100	700 571
		.00 18.0	0 14.00	15.0	18,1	a Cie	so Pri	MODE	Change	Wartum (SCR)	618	802
							_			(Blademone)	1 2007	644

1,800 374 207 594 3,800 1,800 4,100 1,300 350 217

8TR 389 38 4614 53 5 6 16 (7389) 380 15 28 35 154 22 2814 31 164000 380 2814 444 49 3 1114 1516 (7419) 420 18 2814 31 13 25 2814 Cadaury Sch 483 18 = - 16 - - 1465) 542 4 - 5014 - -Bisso 650 46 72% 85% 13% 30% 49 [678 ] 700 19 47 67 38 56 75 ISSC 79 58 527 47% 85% 112 35% 65% 68 66 66 66% 66% 64% 113 Reutern 2000 85 163 203 38 92 114 [2344] 2050 65 137 177 62 117 138 Ray Aug Nov May Aug Nov Ratio-Royce 180 12 1879 23 8 1415 15 (\*186.) 200 4 18 15 2115 25 3015 Underlying security price. Premiums shown are based on closing offer prices.
 March 15 Total contracts: 40,877 Calls: 17,984 Pubs: 22,693

FT GOLD MINES INDEX Hear % ebg May Mer Year Arasa dhy 52 awek 14 on day 11 10 aga yfold % High Low 2641.70 +0.7 2026.56 2022.94 1173.94 1.83 2367.40 1173.54 2805.60 +2.1 2743.44 2735.50 1370.66 488 2853.42 +4.7 2543.79 2441.32 1209.52 1.37 3440.80 1370.66 3013.80 1164.72 Atrica (15) Australasia (8) Norta America (11)

1727.72 -0.8 1741,67 1798 64 1112.45 0.55 Capyright, The Financial Times Limited 1994.
Figures in brackets show number of companies. Basis US Dollars. Basis Values: 1000.00 31/12/92.
Prodecessor Gold Mines Index: Mart 15: 218.9; dee's change: +6.6 points; Year ago. 87.7 | Partial Lasts: prices were unpreficiel for this action.

**LONDON EQUITIES** RISES AND FALLS YESTERDAY

TRADITIONAL OPTIONS

Calls: Arthrex, Avesco, Cannon St, Caverdele, Edmond Hidgs, Eurotumnel Uts, Lasmo, LBMS, Rogallan, Renison Gold, Puts: Eurotunnel Uts, Puts & Calls: Cannon

**LONDON RECENT ISSUES: EQUITIES** price paid oup (2nt) High Low Stock

140 F.P. 259.0 176 163 Alpha Aliports

F.P. 132.0 692 1 %Care UK Wris

105 F.P. 93.1 116 101 Cedordata

150 F.P. 93.3 147 145 Chinosetenes

124 F.P. 136.8 50 47 Edin New Tiger

100 F.P. 136.8 50 47 Edin New Tiger

100 F.P. 138.5 59 93 Pidelity Jon Values

F.P. 158.5 52 48 Do Warrants

130 F.P. 31.8 155 130 Fineflet

F.P. 259 106 96 Fiorning Japan C

F.P. 2570.4 2314; 2305 Frankin Res

170 F.P. 74.1 171 156 Goldsborough Hith

183 F.P. 445.3 215 195 Garaham Group

F.P. 65.3 103 94 Herald Inv Tet

F.P. 65.3 103 94 Herald Inv Tet

F.P. 65.3 53 495 Herald Inv Tet

F.P. 65.3 103 94 Herald Inv Tet

F.P. 65.3 53 495 Mithras Inv Tet

F.P. 204 53 49 Mithras Inv Tet

F.P. 205 22 25 Do Warrants

F.P. 524 200 198 Pizamigan Int C

125 F.P. 17.7 133 115 Radistone Tech

F.P. 583.3 508 491 Schrocker UK Greth

200 F.P. 32.9 216 208 Tirbsit

118 F.P. 558.3 508 491 Schrocker UK Greth

153 F.P. 53.9 160 153 United Cardiers

† Introduction. § Piscong price, F.P. Fully-poid secunity. For t

1 to the Galde to the London Share Sarvico High Low Stock +1 FIN4.03 2.2 2.9 18.7 R3.3 2.3 2.6 18.8 Q28c - 0.6 WN3.3 2.6 2.4 18.5

RIG	ITS O	FFERS					
price 0	Amount paid up	Latest Renur. date	199 High	3/94 Low	Stock	Closing price p	+0
92	Nil	11/4	15pm	10om	Burford	10om	-2
173	N	5/4	27 pm	16pm	Cap. & Regional	16pm	-1
414	N	14/4	8om	3om	Care UK	4 ppm	ولب
42	N	14/4	18pm	4pm	Convact Ratisfast	40m	
15	NE	25/3	4001	2l <sub>2</sub> pm	Creston Land	2 <sup>1</sup> zpm	_2
12	N	13/4	13pm	10om	Firth (GM)	11pm	-12
120	NI	21/3	45pm	33pm	&Grasvenor inne	35pm	_
315	NI	30/3	64pm	52cm	Wetherspoon JD	52pm	

FINANCIAL TIMES EQUITY INDICES

	WG 15	MAY 14	Mar 11	Mar 1U	MOL R	Tr ago	riigh	CTIME
Ordinary Share	2569.3	2546.2	2519.7	2547 2	2555.0	2273.3	2713.6	2124.7
Ord. div. yield	3,81	3.64	3.66	3.63	3.62	4.32	4.52	3.43
Earn, yld. % full	4.91	4.95	4.87	4.82	4.81	6.07	6.38	3.82
P/E ratto net	22,11	21.95	22.16	22.39	22,43	20.53	33.43	19,40
P/E ratio rill	23.09	22.92	23.23	23.47	23.51	18.67	30.80	18.14
'For 1993/94. Order				ion; high 2	713.6 2/0	2/94; kow 4	9.4 26/6/4	a
FT Ordinary Share I	ndex base	date 1/7/	35.					

Open 9.00 10.00 11.00 12.00 13.00 14.00 15.00 16.06 High Low Mar 15 Mar 14 Mar 11 Mar 10 Mar 9 Yr ago 33,617 34,173 41,081 34,943 31,485 32,183 - 1248,0 1872,8 2118,1 1660,7 1301,2 - 38,169 45,620 38,825 35,793 37,334 - 487,9 713,9 760,3 806,4 508,1 SEAQ bargains Equity turnover (2m)† Equity bargains† Shares traded (mil)†

	Mar 15	Cuttone i	MH 14	Mar 11	Mar 10	900	yield?*	9100074	1900	yra	Head
FT-SE 100	3267.4	+1.1	3238.4	3191,9	3233.8	2918.3	3,70	5.74	21.21	23.12	1207
FT-SE MRd 250	3902.5		3886.7				3.14	4.96	24.90	14.80	1421
FT-SE Mid 250 ex inv Trusts	3918.2	+0.4	3900.9				3.23	5.28	23.49		
FT-9E-A 350	1655.5		1640.6			1442.4	3,57	5.55	21.97		
FT-SE SmallCap	2011.95				2018.53		2.75	8.76	83.19		1533
FT-65 SmollCap ex Inv Truets	1992.18				2000.17 1635.49		2,88	4.15 5.43	30.60 22.50		1520
T-SE-A ALL-SHARE	1646.57	+4.0	1032.10	1010.12	1033,46	1454.19	3,61	3.43	22.30	10.10	1200
I FT-SE Actuaries All	-Snare	Day's				Year	Div.	Eam	P/E	Xd ad	. Tol
	May 15	chge%	Mer 14	Mar 11	Mar 10	980		yleki%	ratio	yso	Ret
10 MINERAL EXTRACTION(16)	2531.12				2526.96		3.50	4.91	25.25		
12 Extractive industries(4)	3968.30	+1.1	3024.46	3410 30	3921.70 2433.78	2003 40	3.26 8.71	4.45 5.12	26.86	26,93 31,69	
15 OK, integrated(3)	2433.11 1849.94				1858.31		3.23	3.88	33.10		104
16 Oil Exploration & Prod(11)	_										
20 GEN MANUFACTURERS(204)	2174.78				2158.64		3.43	3,65	33.17 42.27	11.18 2.61	1113
21 Building & Construction(31)	1452.93				1493.00 2258.73		2.45 3.08	3.08 2.54	54.11	1,62	105
22 Building Matts & Merchs(50)	2302.06				2461.84		3.74	4.64		20.00	
29 Chemicals(20)	2473.50 2173.46				2138.25		4.23	4.23		24,90	
24 Diversified Industrials(16) 26 Bectronic & Bloct Equip(34)	2119.84				2098.62		3,47	6.01	20.41		100
	1971.92				1672.79		2.77	2.82	48,49	8.73	110
26 Engineering(72) 27 Engineering, Vehiclas(12)	2350.27	+0.5	2338.96	2354.41	2391.60	1806.90	4.43	3.16		20.61	
28 Printing, Paper & Pckg(27)	9032.80				3034,48		2.69	4.11	29.45		118
29 Textilos & Apperel(22)	1877.43				1925,41		3.32	4.97	25.18	1.58	108
30 CONSUMER GOODS(83)	2885.47	+0.8	2881,28	2839.20	2662.88	2939.10	3.99	7.03		19,08	
31 Breweries(17)	2251.04	+0.7	2236,30	2210.65	2248.05	2182.30	4.06	7.63	16.07		
32 Sprits, Wines & Ciders(10)	3132.32	+0.8	3107.24	3076.21	3108.61	2909.00	3.38	5.85	19.96		
33 Food Manufacturers(23)	3348.11	+0.2	2342.60	2337.84	2360.85	24/3.80	4.03 3.16	7.39 8.76	16.07 17.13		960
34 Household Goods(12)	2714.29	-0.83	1707 94	1799 27	2770.31 1807.49	1801 50	3.10	5.53	21.55		101
36 Health Care(20)	1784.42 3087.38	-02	9050 RS	3025 61	3040.03	3283.80	4.07	7.18	16.24		
37 Pharmaceuticals(10)	4077.10	+1.8	4005.79	3947.07	3989.84	4095.20	5.17	8.10	14.50		878
36 Tobacco(1)				-	2094.11		2.80	5.30	22.97	6.06	101
40 SERVICES(218)	2101.60 3095.29	40.7	3083 RS	3071.17	3082.20	2561.20	2.75	4,88	24.80		104
41 Distributors(31)	2325.66	+0.8	2304.45	2286.59	2296.52	1766.50	3.09	4.37	27.56		
42 Leisure & Hotels(22)	3261.09	+0.4	3248.58	3226.26	3278.45	2216,10	1,92	3.99	29.93	14.30	
43 Media(37) 44 Retailers, Food(17)	1654.80	+1.2	1834,66	1594,42	1623.62	2150.70	3.74	8.55	12.86		960
44 Retailers, F300(17) 45 Retailers, General(43)	1758.49				1744.32		2.71	5.27	23.79		920
48 Support Services(40)	1738.60				1750.52		2.29	6.60 3.49	17.25 33.21	1.95 5.82	1037
49 Transport(16)	2594.23				2605.11		3.24	3.63	40.03	0.97	103
St Other Services & Business(12)	1226.60				1292.95						
60 UTILITIES(36)	2449.18	+1.0	2425.04	2375.12	2432.16	2187.00	4.08	7.12	17.34 11.80	5.60 15.85	944
62 Electricity(17)	2337.94	+1.1 2	2313.06	223/23	2292.70	1000 90	3.54 5.74	10.59	±		921
64 Gas Distribution(3)	2085.73	+1.72	2060.03	2114 18	2039.12 2180.60	1679.50	3.67	5.63	21.71		895
66 Telecommunications(4)	2152.93	-10	1997 73	1849 61	1852.70	1803.20	4.86	13.35	78.8	3.48	916
68 Water(13)	1904.13							5.58			122
9 NON-FINANCIALS(829)	1772.1S				1761.66		3.52	9.38	21.94	8.87	
70 FRANCIALS(104)	2379.38	+1.1 3	2352,73	2309.78	2348.51	1888.20	3.73	5.41	22,65		
	3082.39	+1.5	3036.63	2963,76	3019.80	2282.80	8 48	5.18	23.69		911
71   Benks(10) 73   Insurance(18)	1357,13	+0.7	1347.23	1329.92	1348.28	1358.00	4.70	8.03		13.32	
74 Life Assurance(6)	2555.40	+1.2	2525.29	2488.54	2516.97	20UZ./U	4.58	4.76	26,44	2.91	940 879
76 Merchent Banks(6)	2989.72	+0.8	2907.20	2852.74	2981.84	2252.40	3.05	7.89		11.44	
77 Other Financial(25)	2033.18	+0.3	2027.79	1999.09	2013.96	1000 00	9 18	5.48		12.37	
79 Property(39)	1717.54				1796.86		3.57	3.26	40.70	2.80	958
NO INVESTMENT TRUSTS(119)	2936.63				2947.53		2.18	1.78	57.24	14.80	975
	1646.57	-0.5	1632.78	1815.12	1635.49	1424.79	3.51	5.43	22.50	10.13	126
89 FT-SE-A ALL-SHARE(852)	.040.01										
Hourly movements											
	10.00	11.0	10 1	2.00	18.00	14.00	15.00	16.1	O Hig	h/dey	Low
				50.0	3250.8	3254.0	3259.6	3266	5 39	69.5	3230
T-SE 100 3231.0 324					3897.0	3896.0	3896.6			02.5	3887
T-SE Mid 250 3887.0 389		4045	_		1848.5	1649.8	1852.1			56.1	1839
F-SE-A 360 1639.6 164	3.S 1645.I	, 10-40									
ma of FT-SE 100 High 3.27pm Low 8.31	(mf)										
FT-SE Actuaries 350	Indust	ry bar	sket								
FT-SE Actuaries 35	, Iliangi		1200	13.00	14.00	15.0	0 18,1	0 0	se Pr	evious	Che
Open 9.00	10.00	11.00	12.00	1000	_						
200.1	1399.1 1		1384.2	1380.7	1382.5					196.8	-10
	3035.3 3		3040.7	3042.9	3043.5					20.0	+38
AUG OL CHISHICH								.1 190		#3.2	+38
harmoceutick 3025.7 3033.3			1883.4	1903.1	1902.8						
AUG & CHEMICH TOWNS TO THE	1885.3 1		1883.4 3062.3	1903.1 3078.5	1902.8 3080.9					074.1	+4

Additional entermaillent on the FT-SE Actuaries Share Indices is published in Saturday leaves. Lists of constituents are available from the Fnonzial Times
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29 LONDON SHARE SERVICE INVESTMENT TRUSTS - Cont. LEISURE & HOYELS - Cont. TRANSPORT - Conf. | Marter | M | Marie | Mari 673 28 4.4 4.5 4.4 7.4 2.1 1.9 - bigh +1 5 2213 6 -7 277 +4 2 210 2 +5 746 +1 25 2 +3 540 3 -6 228 2 5,597 236.2 89.1 10,190 10,241 538.0 170.1 50.5 128.4 18.3 7,068 166.1 121 916 317 317 137 148<sub>2</sub> 517 382 108 373 385 1186 385 121 148 OTHER FINANCIAL ## | March | Carta | C \_\_ 17.3 Aberdem Trost. Asico

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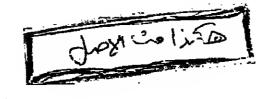
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To A B - Communications of Res.  Starrage Unit Test Managers Lad (0005)F  The Property L. London Scale Set. 671—480 7716  The Conference Unit 11 & 5 Ct 05 33 at 13 14 400 (5.59	7 Carbetral Yard, Entiry E37 1987 232 432144 September 19	MES CAT 9007 (* 44) (* 7.1) (* 7.3) (*	"YING OGNESSED AS CAR GRAMMOUND ARREST HANNEY DAIGHT WITHOUSE PORTFORD MAYORS (1900)F BY New BOAD SANUEL LONDON NYY CLA 071-628 1483 DAILE II GONTO (A.S.) () 65-21 68-36 78,001-625 ( LA	prior of units.  OFFER PRICE: Also called leave price. The price at which units are brought by levesters.  SID PRICE: Also called redemption price.	patification and entry out for the current deating levels because of on intervening portions revolution or 5 seeks; to 6 forested pricing totals. The managers, must deal at 4 forward		Ferro for Ass. — 8-2 377 69 285 69 577 6 28 61 62 6 K. Rodon Truck Olst. 6 132,70 156 59 164 6 287 28 6 K. Rodon Truck Acc. 6 132,80 156,50 194,20 +0.912,83 TSB Unit Trusts (1200); District R. Accord. Napts. 5710 188
Errops d 1946 158 1689 4030 135 19 George d 1689 170 2d 1811 119 180 13 merong 8 1881 133 1487 420 281	###   Investment Magant Ltd (1000)F 8 West Smed, Brighten Brif 248 (273 220797 Family Apper 7st	TO SEC MANUFACTURE AND A SEC MANUFACTURE AND	inters for Scientifica (5), 69-45, 91,18, 65,101,45,91,18, inclusion from Epoc., 64, 77,00, 77,00, 77,44,430,90,00, igh income Med., 64, 57,322, 59,277, 62,00,42,7,4,4, for second epoc., 64, 55,33,53,53,53,53,64,420,44, included Grand PEP, 64,6,6,50, 65,75, 68,65,420,44,4, included Grand PEP, 64,6,6,50,6,57, 68,65,420,44,4, included Grand PEP, 64,6,6,50,6,57, 68,65,420,44,4, included Grand PEP, 64,6,6,50,6,50,75, 68,65,420,40,4,4, included Grand PEP, 64,6,6,50,6,50,50,50,50,50,40,4, included Grand PEP, 64,6,6,50,50,50,50,50,50,40,4, included Grand PEP, 64,6,6,50,50,50,50,50,50,4, included Grand PEP, 64,6,50,50,50,50,50,50,50,50,50,50,50,50,50,	The crice at which units are sold back by tensions.  CANCELLATION PRICE: The soldman redescript price. The readman spread between	price on request, and way show to forward pricing at any time.  FORWARD PRICING: The latter F denotes that the managers deal at the orige to be set on the mark values on, investors can be given as	th General 25 (200.) 200.) 200.0 130.0 131.0 130. IV. General 25 (77.) 60.1 (200.) 200. 130. IV. General 25 (77.) 60.1 (200.) 200. 131.0 130. IV. General 25 (10.) 100.0 13	128 Armstram
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	Service (196 Egross 31 - 39.16 - 39.10 - 39.44 - 400   4.80   printed the America (4, 21.26 - 72.29   42.2   400   61.20   portfolio (196 America (4, 21.26 - 22.20   72.29   42.2   400   61.20   portfolio (196 America (4, 22.26   4.90   72.20   400   61.20   portfolio (196 America (4, 22.26   4.90   72.20   4.90   72.20   portfolio (196 America (4, 22.26   4.90   72.20   4.90   72.20   portfolio (196 America (4, 22.26   4.90   72.20   4.90   72.20   portfolio (196 America (4, 22.26   4.90   72.20   4.90   72.20   portfolio (196 America (4, 22.26   4.90   72.20   4.90   72.20   portfolio (196 America (4, 22.26   4.90   72.20   4.90   72.20   portfolio (196 America (4, 22.26   4.90   72.20   4.90   72.20   portfolio (196 America (4, 22.26   4.90   72.20   4.90   72.20   portfolio (196 America (4, 22.26   4.90   72.20   4.90   72.20   portfolio (196 America (4, 22.26   4.90   72.20   4.90   72.20   portfolio (196 America (4, 22.26   4.90   72.20   4.90   72.20   portfolio (196 America (4, 22.26   4.90   4.90   4.90   portfolio (196 America (4, 22.26   4.90   4.90   portfolio (196	38 Hartour Exchange St. Len 817 905.   071-538 9088   1. Bolanced	Surrestiant link 1st Megant Ltd (1200)  burestian link 1st Megant Ltd (1200)  burestian less, Bernweck, Genoether GL 762  gelin 642 7930  Sent Inst 5   759.3   281.2   277.5   41.5   10.6    gly become 5   115,   116,   124,   40.4   24.6	(AME: That upwellows despeared the sund temporar's frame is the time of the will treat's wheather point wises mother time is indicated by the symbol shoopade the individual eart work mans. The symbols are as indices; (49) - 0001 to 1100 fears; (4) - 1101 is 1400 fears; (4) - 1401 to 1700 fears; (4) - 1701 to makingst.	Other technology notes are contained in the last column of the FT Managed Fields Service.	### 6 Facilitatives. 54 St. 54 Med. 57 ml 42 ml 7 ml 42 ml	750 6 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
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FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (071) 873  Ind Cand that Company Trust Price on the Price of th	+ or Trace Sid 6fter + or Tripid Sid Other +	Din Other or Yald Pera Pera Cress
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Value for UK	President Administration   157.3   165.8   40.1	Providence Capital Life Assc. Co Lid - Contal
Carlo Tragons   5   10	1.00   1.00	Eartopean Acc
Control Section   1, 2017   94.37   1017   425   0.00   1018	Servicide   Assertance   Company   14	100   100
IK Growth & Income   60 ST   82-97   - 0.6	Freedom Printers   Freedom Pri	Prudential Corporate Pencion Fruids  5 Ang 9 Node Roding Part 3 Me  Protestal Manager Fruids  Corporate 9 C. 100 C. 20 C
Chip—Chariffee Official low Felt: 2 Fore Savet Lumber CCC; SAQ G71–588 1813 Incomo Fel 24	1985   1986	148 Bend   147   148 Bend   148
Exercit American Parishal.   151.0   151.3   40.70   0.00   151.3   40.70   0.00   151.3   40.70   0.00   151.3   40.70   0.00   151.3   40.70   151.3   40.	Table   Color   Colo	Presidential Statistical Pleasaton Frances  Stillor's Boson, Recording 681 3250 423 643652  Stillor's Boson, Recording 681 3250 423 643652  Stillor's Boson, Recording 681 3250 423 6436 6236  Stillor's Boson, Recording 681 3250 425 625 625 625 625 625 625 625 625 625 6
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Comparison   Com	Proof Internet Acc.   646.0   677.3   43.0   Penistral Funds   271.0   275.5   1.0   Engine Funds   271.0   271.0   1.0   Engine Funds   271.0   Engine Funds	10   10   10   10   10   10   10   10
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TMANAGED FUNDS SERVICE

THANKS THE PROPERTY OF FINANCIAL TIMES WEDNESDAY MARCH 16 1994 FT MANAGED FUNDS SERVICE ● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on { 071 } 873 4378 for more details. Dangle Prices Prices - Offices - Offices

MONEY MARKET

#### **CURRENCIES AND MONEY**

#### **MARKETS REPORT**

### steady on mixed data

Against the Yen (V per 5)

--- Latesc 1.4915 1.4893 1,4867 1.4817

explained by the market

already having factored in a

ures contained nothing new for dollar bulls. He predicted the US currency "will find it very difficult to make progress

against the D-Mark from now

dollar bulls, showing an unad-

justed 0.9 per cent decline in the February surplus with the

This positive oote was

promptly offset by comments from Mr Mickey Kantor, the US trade representative show-

ing that the US would continue

to play tough over the trade

talks, "Our trade and economic

relationship, a key priority of the Clinton administration, is

in serious disrepair," he said.

■ The D-Mark was mixed in

European trading ahead of

today's repo announcement. It

US from a year earlier.

Japan's February trade figures offered some solace for

rise in US interest rates. Mr MacKinnon said the fig-

Economic data released in the US yesterday revealed hints of inflation, but had little impact on the dollar which has already factored in a further Fed tightening, writes Philip

The US currency failed to make a sustained break through the key technical level of DM1.6975 and finished in London at DM1.6963, up from DM1.6898 oo Mooday.

Boosted by a fall in Japan's bilateral trade surplus with the US in February, the dollar also ficished stronger against the yeo, closing at Y106.150 from Y105.880.

in Europe the recovery from recent interest rate pessimism cootioned with both sterling and euromark futures rising across the the yield curve. Market speculatioo is that the Bundesbaok will today announce a more generous cut in its repo rate than the 3 basis points of the last two weeks.

■ The dollar weakeoed initially after the release of fairly modest inflation data which appeared to postpooe the need for higher US interest rates. Although the headline figure showed February producer prices up by 0.5 per ceot, this figure fell to 0.1 per cent when the volatile food and energy sectors were excluded. Cold weather in Fehruary pushed

fuel bills to exceptional levels. The industrial productioo numbers released a little later. however, leot support to the US currency. February industrial production rose 0.4 per ceot, against expectations of no change, while capacity use was 83.4 per ceot against a 83 per cent forecast.

Mr David Cocker, currency analyst at Chemical Bank, said the capacity utilisation mea-

+0.02 -0.03 +0.03 +0.03

95.65 95.26 94.84

95.64 95.25 94.83

95.68 95.29 94.96 94.64

points firmer at 95.06. Analysts said German call

money, in the 5.85 · 5.90 range was also helping, in that it indicated the market could accept a 6-7 basis points cut without difficulty.

Call money is now below the

repo rate, which is 5.94 per cent. The Bundesbank yester-day announced that it would be implementing another variable rate repo.

Some observers were more aggressive in their forecasts with Citibank's Mr MacKinnon saying he "would not be sur-prised" if the repo fell to 5.75 per cent. "The strength of the D-Mark gives the Bundeshank a chance to put through quite a handsome repo cut. One factor likely to have a

bearing oo the size of the cut is the reportedly easy liquidity position of the banks, which may have eocouraged lower

■ Sterling showed little reaction to the CBI's distributive trades survey which showed a slow-down in retail sales growth. It finished slightly weaker against the dollar at \$1.4915 from \$1.4945, but was firmer against the D-Mark closing at DM2.53 from DM2.5254. The CBI survey did have an impact in the futures market

with the June sterling contract rising by six points to 94.90, and the December cootract eight points higher at 94.60. In the discount market the overnight rate maintained its firm tone of late, trading around 6 per cent. Mr Philip Shaw, group economist at Union Discount, said the Bank

of England was continuing to have difficulty in clearing the shortage. He said this reflected a shortage of bills rather than pressure from the Bank.

Mar 18		Closing	Change	Sid/offer	Day's Mid		One month		Three m				
		mid-point	on day	perios	high	forv	Rete	%PA	Rate	16PA	Rade	XPA	Eng. Inde
ETLOBO													113.8
Austria	(Sch)	17.7973		876 - 070		17.6683	17.7935		17.7879	0.2			
Beigium	(BFr)	52,1130		657 - 603		52,0281	52,163				52,509		114.
Denmark	(DKI)	9.8758		682 - 830		9.8514	9.8845	-1.1	6.8992	-1.0	9.934	-0.6	
Priand	(FM)			518 - 722	8.2990								81.
France	(PF1)	0.5984		947 - 021		8.5799	8.5079	-1.3	a5236		<b>26478</b>		108.
germany	(DM)	2.5300		287 - 312		2.5255	2.532	-0.9	2.635	-0.8	2.5354	-0.2	123
Greece	(D1)		+0.081	681 - 673		557.133		-	-	-	-	-	
reland	(42)	1,0399	+0.0001	388 - 410		1.0391	1,0407		1.0424		1.0482		102
taly	(A)	2493.27	-1,43	131 - 522		2480.44	2500.47	-3.5		-33	2565,57		75.
Locambourg	(LFr)	52,1130	+0.1014	857 - 603	52.2151	52,0281	52,163	-1.2	52,258	-1.1	52.503	-0.7	114.
Netherlands	(FI)	2.8421	+0.0055	404 - 438	2.8484	2.8345	2,8427	-0.3	2.8436	-0.2	2.8405	0.1	118.
Norway	NKH	10.9499	+0.0225	447 - 550	11,0105	10.9038	10.9442	0,6	10.9568	-03	10.9479	0.0	85.
Portugui	(Es)	259,820	+0.748	658 - 961	260,441	258,017	280,795	-4.5	262.74	-4.5	-	-	
Spain	(Pts)	207.528	+0.B44	413 - 842	207.965	207.000	208.133	-35	209.203	-3.2	213,316	-28	84.
Sweden	SKI	11,7548	+0.0163	452 - 643	11,8349	11.7071	11.7748	-20	11.8103	-1.8	11,9195	-1.4	76.
Switzerland	(SFr)	2,1500	+0.0091	485 - 515	2.1537	2.1452	2.1482	1.0	21448	1.0	2.1221	1.3	117.
K	(2)		-	-	_	-	-	-		-	-		80.
Ecu	-	1,3096	+0.8022	089 - 102	1,3116	1.3076	1.3111	-1.9	1.3133	-1.1	1,2188	+0.7	
SDA	-	0.937732		-				-	-	_	-	-	
Americas													
Argentina	(Peso)	1,4909	-0.0033	903 - 914	1.4961	1.4898	-	-	-	-	-		
trazil	(0)	1126.74	+15.34	635 - 712	1129.00	1106.00		-	-	-	-	-	
Carada	(CS)	2 0338	+0.0013	327 - 348	2.0365	2.0284	2.0311	1.8	2,0289	1.0	2,0301	0.2	88.
Mendoo (New	Pesol	4.9593	+0.0797	501 - 684	4.9684	4.9160	-	_	-	-		-	
ISA	(5)	1.4815	-0.003	910 - 920	1.4984	1,4897	1,4894	1.7	1,4869	1.3	1.4819	0.0	66.
Pacific/Middle													
Australia	CAS	2.0727	-0.008	714 - 740	2.0815	2,0650	2.0712	0.9	2.0689	0.7	2.0000	0.3	
Hone Kong	0.000	11,5223	-0.0245	177 - 269	11,5618	11.5094	11,5093	1.4	11,5039	8.0	11.4548	8.0	
nde	Pol	46,7848	-0.0979	652 - 040	48.9380	46.7320	-	-	_	-	_	-	
lacen	m	158.323	+0.085	195 - 450	159.510	158.160	157.939	3.0	157,228	2.8	153,838	2.8	183
Malayala	0.650	4.0600	+0.0078	749 - 851	4,0964	4.0855	-	-	-	-			
New Zeeland	NZS	2.5874		85C · 898	2,6000	2.5832	2,5903	-1.3	2,5048	-1.1	2,6032	-0.9	
Philocines	Pesci	41,1282		534 - 030	41.4030	40.8534		-				1 -	
Secret Arabia	(SF)	5.5934		911 - 958		5.6870	-	-		-			
Singapore	(55)	2.3673		656 - 888		2.3642	_		-		_	-	
Africa (Com.)		5.1491		482 - 519		5.1328	-	_	-	_	_	-	
Africa (Fin.)	070	6.7938		841 - 035		6.7342	-	_		_	_		
South Kores	(Word	1202.53		175 - 330		1201.44		_	_	_	_	_	
l'aiwen	(12)	39.3756		624 - 888		39,3300			_	_		_	

DOLLAF	SP	ot for	WARD	AGAINS	THED	CLLA	7			3-1		_	
Her 15		Closing mid-point	Change on day	Bid/after spread	Day's righ	anid low	One mo	mth %PA	Three mo	withs NPA	One ye	%PA	LP Morger Index
Europe													
Austria	(Sch)	11.9325	+0.0487	300 - 350	11.9580	11,8975	11,953	-21	11.98	-1.8	11.99	-0.5	103.1
Beigkm	(BFr)	34.9400	+0.138	200 - 600	35.0080	34.7900	35,025	~2.9	35,145	-23	35.44	-1.4	104.3
Denmerk	DK	6.6213	+0.0402	185 - 240		6.5909	2.6368	-2.B	2,6598	-23	a7013	-1.2	103.0
Finland	(FM)	5.5394	+0.0445	344 - 444	5.5568	5.4760	5.5451	-1.2	5.5504	-0.8	5.5556	-0.3	78.5
France	(FF1)	5.7850	+0.024	644 - 655	5.7786	5.7425	6.7798	-3.1	5.7998	-24	5.8373	-1.3	105.1
Germeny	(0)	1.8963	+0.0086	260 - 985	1.7010		1.7001	-2.7	1.7049	-20	1.7114	-0.9	104.7
Greece	(Cr)	245.850	+0.55	600 - 100	247.100			-17.7	257.35			-15.8	71.1
Ireland	(12)	1,4343	-0.003	333 - 353	1.4368	1.4304	1.4308	2.9	1,4259	23	1.4118	1.8	-
italy	64	1671.65	+2.4	090 - 240	1675.25	1669.05	1678.95	-5.2	1690.7	-4.6	1731.65	-3.6	76.2
Luxembourg	(LFr)	34,9400	+0.135	200 - 800	35,0080	34.7800	35.025	-2.9	35,145	-23	35,44	-1.4	104.3
Netherlands	F	1.9055	+0.0075	050 - 060	1.9097	1.8970	1_9087	~2.0	1.9124	-1.4	1.9169	-0.8	103.6
Norway	(NKI)	7.3415	+0.0296	405 - 425	7.3595	7.3100	7.3522	~1.8	7.3847	-1.3	7.3775	-0.5	95.0
Portugal	(En)	174,200	+0.85	150 - 250	174,500	173.550	175.18	-6.8	176.64	-5.8	181.9	-4.4	83.1
Spain	Ptst	139.140	+0.71	110 - 170	139,400	136,700	139.75	-5.3	140.695	-4.5	143,975	-3.5	80.4
Sweden	SKA	7.8812	+0.0267	774 - 949	7.9100	7.B389	7.9082	-4.1	7.9455	-3.3	8,0482	-21	82.2
Switzerland	(SFr)	1,4415	+0.009	410 - 420	1.4450	1.4350	. 1.4423	-0.7	1,4423	-0.2	1.4324	0,6	104.D
UK	(0)	1,4915	-0.003	810 - 920	1,4984	1,4897	1,4894	1.7	1,4868	1.3	1.4819	0.6	89.4
Ecu	,-	1.1390	+0.0042	388 - 391	1.1429	1.1373	1.138	3.1	1,1322	2.4	1.1235	1,4	-
SDR	_	1,40191	_				-	-	-				-
Americas													
Argentina	(Pesci	0.9996	-0.0002	995 - 996	0.9996	0.9994			_	-	-		-
Brazi	(Cr)	755,435		430 - 440	755,440		_	-	_	_	-		_
Cenada	CS	1,3838	+0.0036			1.3603	1,3839	-02	1,3645	-03	1.37	-0.5	85.0
	Pesol	3.3250		200 - 300	3.3300		3.3266	-0.6	3.3294	-0.5	3.34	-0.5	-
USA	(5)		70.00		-	-	-						101.0
Pacific/Adddda		164ma						-	-				,
Australia	LAS	1.3897	-0 0005	883 - 200	1,3914	1.3854	1,3908	-0.9	1,3636	-1.1	1.4012	-0.8	88.4
Hone Kone	0-000	7.7253		248 - 258		7.7247	7.728	-0.1	7.73	-02	7,7488	-0.3	-
india	(Pal	31.3875		650 - 700	31,3700		31,4325	-2.5	31.5875	-2.8	1,1400		_
		100.150	+0.27		109.880		106,045	12	105.745	1.5	103.92	21	144.8
August 1	m			330 - 380	27410		2,7295	2.5	2.713	33	2,7855	-1.8	144.0
Matayala	(MS)	2.7355										-1.2	-
New Zeeland	(NZS)	1.7348		337 - 358		1.7325	1.7364	-1.1	1,7409	-1,4	1.7551	-1-2	-
Philippines	(Peso)	27.5750		000 ~ 500	27.7500			.:		-:	:		-
Sauci Ambia	(SFD)	3.7502		488 - 504		3.7500	3.7526	-0.8	3.757	-0.7	3,7757	-0.7	-
Singapore	(35)	1,5672		867 - 877	1.5877	1.5850	1.5872	0.0	1,5872	0.0	1.6107	-1,5	-
S Africa (Com.		3,4523		515 - 530		3,4425	3,4866	-5.0	3.4958	-5.0	3,5828	-4.1	-
S Africa (Fin.)	(73)	4.5550		500 - 600		4,5075	4.586	-82	4,65	-B.3		-	-
South Korea	(Won)	806,250	-0.25	000 - 500	807.400	806,000	809.25	-4.5	812.76	-32	831.25	~3,1	-
Talwan	(13)	26,4000	+0.01	200 - 000	26,4000	26.3900	26,5026	-4.7	28.85	-3.5			-
Thailand	(194)	25,3250	40 006	200 - 300	25,3300	25 2200	25,395	-3.3	25.536	-3.3	25.675	-1.4	-

sure had caused concern. "We are almost at the level at which in the past we have seen inflatioo pressure huild in the US."  Mr Neil MacKinnoo, chief currency strategist at Citibank, endorsed this view, saying "Inflation pressures are bubbling below the surface." He said there was nothing in the data to prevent the Fed from tightening if it wishes.  Mr Cocker sald the muted response of the dollar was CROSS RATES AND DEFIVATIVES	Yesterday the Bank provided the market with £550m late assistance after earlier putting £658m liquidity into the system. This compared with a revised forecast of a £1.25bn shortage.   Market Compared with a revised forecast of a £1.25bn shortage.   Market Compared with a revised forecast of a £1.25bn shortage.   Market Compared with a revised forecast of a £1.25bn shortage.   Market Compared with a revised forecast of a £1.25bn shortage.   Market Compared with a revised forecast of a £1.25bn shortage.   Market Compared with a revised forecast of a £1.25bn shortage.   Market Compared with a fine forecast of a £1.25bn shortage.   Market Compared with a fine forecast of a £1.25bn shortage.   Market Compared with a fine forecast of a £1.25bn shortage.   Market Compared with a fine forecast of a £1.25bn shortage.   Market Compared with a fine forecast of a £1.25bn shortage.   Market Compared with a fine forecast of a £1.25bn shortage.   Market Compared with a fine forecast of a £1.25bn shortage.   Market Compared with a fine forecast of a £1.25bn shortage.   Market Compared with a fine forecast of a £1.25bn shortage.   Market Compared with a fine forecast of a £1.25bn shortage.   Market Compared with a fine forecast of a £1.25bn shortage.   Market Compared with a £1.25bn shortage.   Market Compare	633 - 638
EXCHANGE CROSS RATES  Mac, 15 BF7 DK7 FF7 DM LC L FI	NKY Es Pta SKY SY E CS \$ Y Ecu	EMS EUROPEAN CURRENCY UNIT RATES  May 15 Ecu our. Rute Change % +/- from % spread Dw.
Belgium (BFr) 100 18.95 18.50 4.865 1.896 4784 5.454 Denmark (DKr) 52.76 10 8.706 2.582 1.053 2524 2.678	21.01 498.6 398.2 22.55 4.126 1.919 3.903 2.861 303.8 2.514 11.09 283.1 210.1 11.90 2.177 1.013 2.080 1.510 180.3 1.326	rates against Ecta on day can rate v weatheat Incl.  1 trainered 0.808628 0.794880 -0.00105 -1.70 4.74 11
France FFH 60,61 11.48 10 2.943 1.210 2900 3.305 Germany (DM 20,60 3.904 3.398 1 0.411 985.4 1.123 trotend (t) 50.11 8.496 8.267 2.433 1 2397 2.733	12.74 302.2 241.3 13.67 2.501 1.163 2.386 1.734 184.1 1.524 4.328 102.7 82.02 4.644 0.860 0.395 0.804 0.588 62.57 0.518 10.53 249.8 198.5 11.30 2.087 0.962 1.956 1.434 152.2 1.280	Netherlands 2,19672 2,17185 -0.00033 -1.13 4.14 -  Beighum 40,2123 39,8186 -0.0307 -0.98 3,98 7  Germany 1,94964 1,93305 +0.00072 -0.65 3,84 -
Nativerlands         ILJ 2,980         0.396         0.345         0,101         0.042         100         0,114           Notherlands         (FII 12.34         3.475         3.025         0.890         0.396         877.2         1           Norwey         (N40) 47.59         9.019         7.852         2.311         0.850         2277         2.595	0.499 10.42 8.323 0.471 0.096 0.040 0.092 0.090 6.350 0.053 8.653 91.41 73.01 4.134 0.757 0.352 0.716 0.525 55.70 0.461 10 237.3 199.5 10.73 1.963 0.913 1.856 1.362 144.5 1.196	France 8.53863 8.57206 +0.00248 0.51 2.44 -4 Democrit 7.43679 7.54560 +0.00642 1.46 1.47 -10 Spein 154.250 158.534 +0.179 2.79 0.18 -18
Portugal (Es) 20.06 3.801 3.309 0.874 0.400 959.8 1.094 Spaln (Pta) 25.11 4.700 4.144 1.218 0.501 1.201 1.370 Swador (SH) 44.35 4.05 7.317 2.153 0.885 2122 2.419	4.215 100. 79.87 4.523 0.828 0.385 0.783 0.574 60.93 0.504 52.77 125.2 100. 5.663 1.036 0.482 0.890 0.716 76.29 0.631 9.319 227.1 178.6 10 1.830 0.851 1.731 1.286 134.7 1.115	Portuget 192.854 198.558 +0.467 2.96 0.00 -20 NON EHM MEMBERS
Switzerland (SFr) 24.24 4.593 3.999 1.177 0.484 1160 1.322 UK (C) 52.11 9.879 8.588 2.530 1.040 2493 2.842	5.093 120.6 96.51 5.485 1 0.465 0.946 0.893 73.83 0.608 10.95 259.8 207.5 11.75 2.150 1 2.034 1.491 158.3 1.310	Greace 284.513 . 281.294 +0.138 8.94 -3.18 - Nely 1793.19 1907.90 -2.75 6.40 -3.23 - UK 0.788749 0.784917 -0.000516 -2.89 8.02 -
Canada         (CS)         25,62         4.855         4.227         1.244         0.511         1228         1.397           US         (S)         34.95         8.624         5.767         1.897         0.688         1672         1.906           Japan         (Y)         329.2         62.39         54.31         15.98         8.570         15749         17.85	7.344 174.2 139.2 7.881 1.442 0.671 1.364 1 106.2 0.679 69.17 1641 1311 74.23 13.58 6.317 12.85 9.419 1000. 8.275	End control rates set by the Enropean Commission. Commission in descending relative strength. Percentage changes are for End, a positive change denotes a week commiss, Designment shows the rates between two spreads the percentage ofference between the cases and set of the percentage of the percentag
Ecu 39.78 7.539 6.563 1.931 0.794 1903 2.169 Let per 1.000, Danish Kroner, France, Norwegian Kroner and Swedish Kroner per 10; Belgian		for a correstly, and the maidman permitted percentage deviagen of the common/s market rate from its Exa central rate. (17/6/82) Starling and Japan Line suspended from ERM. Adjustment calculated by the Pintendal Times.
Open Latest Change High Low Est. vol Open Int.	M JAPANESSE VEN FUTURES (MM) Yen 12.5 per Yen 100  Open Latest Change High Low Eat vol Open int.	PHR.ADELPHIA 3E E/3 OFTIONS (231,250 (cents per pound)  String PUTS PUTS
Jun 0,5886 0,5857 -0,0033 0,5899 0,5854 44,387 86,231 Sep 0,5848 0,5940 -0,0033 0,5852 0,5840 127 2,708 Doc 0,5838 0,5837 -0,0027 0,5840 0,5837 5 132	Jun 0.5457 0.8414 -0.0036 0.5463 0.5406 25,900 48,219 Sep 0.5495 0.9468 -0.0025 0.9500 0.8461 85 1,373 Dec - 0.9525 7 396	Price Apr May Jun Apr May Jun 1.400 8.62 8.79 8.66 - 0.10 0.30
SWISS FRANC FUTURES (IMM) SFr 125,000 per SFr	III STEPLING FUTUREE (MAN) DEZ,500 per E	1,425 6.46 6.56 8.79 0.06 0.33 0.66 1.450 4.23 4.58 4.90 0.32 0.79 1.25 1.475 2.42 2.88 3.33 0.85 1.60 2.15
Jun 0.8955 0.8924 -0.0038 0.8980 0.6915 22,006 32,883 Sep 0.8950 0.8935 -0.0037 0.8980 0.8928 96 289 Dec 0.8955 0.8950 -0.0035 0.8985 0.8850 38 33	Jun 1,4904 1,4856 -0.0068 1,4910 1,4850 7,701 24,107 Sep - 1,4820 - 1,4820 88 586 Dec - 1,4800 - 1,4800 3 30	1.500 1.12 1.69 2.16 2.14 2.79 3.36 1.525 0.49 0.89 1.50 3.89 4.47 4.96 Previous day's vol., Calle 110.262 Puls 67.308, Prev. day's open int., Calle 478,844 Puls 573,745
Dec 0 6965 0 6960 -0.0035 0.6965 0.6950 39 33	Dec · 1,4800 1,4800 3 30	UK INTEREST RATES
MONEY RATES	IN THREE MONTH EUROMANK FUTURES (LIFFE) DATE points of 100%	LONDON MONEY RATES
March 15 Over One Three St; One Lomb. Dis. Report month inthe inthe year inter. rate rate  Delghum " 6" 61 81 8" 8% 7.40 5.00 -	Open Sett price Change High Low Est. vol. Open brt. Jun 94:56 94:60 94:60 94:54 37927 253231 Sep 94:82 94:87 +0.05 94:90 94:82 34103 180032	Mar 15 Over- 7 days One Three Sk One right notice month months months year
NOTE AND 10'S 63 63 84 7.40 5.00 - France 64 64 84 53 6.10 - 7.75	Dec 94.95 95.04 +0.08 95.08 94.96 39141 148343 Mar 95.02 95.13 +0.11 95.15 95.02 6153 118426	Instrument Starting   6 <sup>1</sup> 2 - 5 <sup>1</sup> 2 - 5 <sup>1</sup> 4 - 5 <sup>1</sup> 4 - 5 <sup>1</sup> 5
wines injo 6% 6% 6% 6% 6% 50 6.10 - 7.75 Oermany 5.90 5.95 5.80 5.65 5.43 8.75 5.25 5.94 winch ago 8.65 5.85 5.85 5.72 5.48 8.75 5.25 5.97	Open Sett price Change High Low Est vol Open Int.	Bank Bills  Local authority deps. 512 - 513 514 - 513 514 - 513 - 514 - 514 - 515 - 514 - 515 -
Trained 6년 6년 6년 6년 6년 6년 2,75 이전에 2010 8년 6년 6년 6년 6년 6년 6,75 Starly 8년 6년 8년 8월 6년 - 6,00 892	Jun 91.63 91.94 +0.13 81.87 91.82 10275 58538 Sop 92.08 92.19 +0.12 92.19 92.08 5181 25711 Oec 92.21 92.30 +0.12 92.32 92.17 3089 41465	UK clearing bank base lending rate 5% per cent from February 8, 1994 Uo to 1 1-3 3-6 6-9 9-12
work ago 8% 6% 61; 62 54 - 6.00 8.52 Networkanda 553 5.41 5.29 5.20 5.16 - 5.25 - work ago 553 5.47 5.24 5.16 5.11 - 5.25 -	Mar 92.16 92.31 +0.18 92.32 92.12 2058 () III THREE MONTH EURO SWISS FRANC FUTURES (JFFE) SF1 im points of 100%	Tronth month months months months months  Gents of Tax dep. (\$100,000; 112 4 33; 34; 34;
Switzerland 4 43 44 4 32 6.625 4.00 - wrekego 41, 43 44 4 38 6.625 4.00 - US 34 37 39 44 65 - 3.00 -	Open Set price Change High Low Est vol Open Int.  Jun 96.18 96.19 40.01 96.20 96.16 2516 29567  Sep 95.24 96.27 +0.03 96.27 95.24 687 6555	Garts of Tex dep, under \$100,000 is 1/ppc. Deposits eithdrawn for cash 1/ppc.  Avs. textor case of decount 4.78t pc. ECGD fixed rate 98g, Export Primine, Make up day February 28, 1994. September 38 is 16.60pc. Reference rate for period Feb 1. 1994 to Apr. 28, 1994. Schemes 18 is 16.60pc. Reference rate for period Feb 1. 1994 to Feb 28, 1994. Schemes N & V 5.285pc. Finance Place Base Pale 51/ppc from
week ago 3'4 3'4 3'8 4½ 4'5 - 3.00 - Japan 2'5 2'5 2'4 2'4 2'3 - 1.75 - week ago 2'4 2'4 2'4 2'4 - 1.75 -	Dec 96.20 96.20 +0.04 96.23 96.16 185 4540 Mor 96.10 96.10 96.10 96.10 96.10 90.00 0 **THEREE MONTH ECU FUTURES (LIFFE) Equim points of 100%	Mar 1, 1994  B. THERE MONTH STEPLING PUTURES (LEFE) \$500,000 points of 100%
# \$ LISOR FT London Interbank Pixing - 32 3's 4¼ 4¾	Open Sett price Change High Low Est. vol Open Int. Jun 94.15 94.20 +0.05 94.20 94.16 1168 115.20	Open Sett price Change High Low Est. vol. Open Int. Mar 94,61 84,62 +0,01 94,62 94,61 8636 55784 Jun 94,85 84,90 +0,08 94,91 94,84 16088 110135
week ago - 32, 3% 4% 45		
US Dollor CDs - 3.44 3.68 3.94 4.39	Sep 94.35 94.42 +0.07 94.42 94.35 887 10018 Dec 94.48 94.53 +0.06 94.52 94.46 481 6730	Sep 94.72 84.79 +0.07 94.79 94.72 9489 74518 Dec 94.51 84.80 +0.08 94.80 94.51 7399 97848
week ago - 3.44 3.68 3.94 4.32 SDR Linked Ds - 3's 3's 3's 4	Sep 94.35 94.42 +0.07 94.42 94.35 887 10018	Sep 94.72 84.79 +0.07 94.79 94.72 9499 74518
wret ogo - 3.44 3.68 3.94 4.32 SDR Linked Ds - J's 3's 37s 4	Sep         94.35         94.42         +0.07         94.42         94.35         867         10018           Doc         94.45         94.53         +0.08         94.52         94.46         461         8730           Mor         94.85         94.55         +0.07         94.52         94.48         140         0	Sep   94.72   84.79   40.07   94.79   94.72   94.99   74518     Dec   94.51   84.60   40.06   94.80   94.51   7399   97848     Traded on AFT, At Open Interest Sign, are for previous day.   If SHORT STEERLING OPTIONS (LIFE)   DS00.000 points of 100%     Softer   CALLS   PUTS     Price   Mar Jun   Sep   Mar Jun   Sep
week opp 3.44 3.68 3.94 4.32  SDR United Da 3's 3's 3's 4	Sep   94.35   94.42   +0.07   94.42   94.35   887   10018	Sep   94.72   84.79   +0.07   94.79   94.72   94.99   74518     Dec   94.51   84.60   +0.08   94.80   94.51   7399   97848     Traded on AFT, At Open Interest Sign. see for previous day.   If SePORT STEERING OPTIONS (LIFE)   DS00.000 points of 100%     Softes
week opp - 3.44 3.68 3.94 4.32  SDR Linked Dis - 3*s 3*s 3*s 4	Sep   94.35   94.42   +0.07   94.42   94.35   887   10018     Dec   94.45   94.55   +0.08   94.52   94.46   461   6730     Mar   94.48   94.55   +0.07   94.52   94.48   140   0     LIFFE Intuition traded on APT	Sep   94.72   84.79   +0.07   94.79   94.72   9499   74518     Dec   94.51   94.60   +0.06   94.80   94.51   7389   97848     Traded on APT, All Open Interest Sign. are for previous day.    Sep   Sep   Sep   Sep   Sep   Sep   Sep   Sep     Price   Mar   Jun   Sep   Sep   Sep   Sep   Sep     Price   Mar   Jun   Sep
week ago - 3.44 3.68 3.94 4.32	Sep 94.35 94.42 +0.07 94.42 94.35 887 10018 Dec 94.45 94.55 +0.08 94.52 94.46 451 6730 Mar 94.48 94.55 +0.07 94.52 94.48 140 0  *LEFE triums traded on APT  IN THREE MONTH EURODOLLAR (MM) \$1m points of 100%  Open Latest Change High Low Est. vol. Open Int. Jun 95.65 95.65 +0.01 95.69 95.54 123.130 477.581 Sep 95.25 95.25 -0.01 95.29 95.23 60.462 378,795 Dec 94.83 94.84 -0.01 94.87 94.52 51,668 282,407	Sep   94.72   84.79   +0.07   94.79   94.72   94.99   74518     Dec   94.51   84.60   +0.08   94.80   94.51   7399   97848     Traded on AFT, At Open Interest Sign. see for previous day.   If SePORT STEERING OPTIONS (LIFE)   DS00.000 points of 100%     Softes
## 15   Short   F days   Short   Short	Sep   94.35   94.42   +0.07   94.42   94.35   887   10018     Dec	Sep   94.72   84.79   +0.07   94.79   94.72   94.99   74518     Dec   94.51   84.60   +0.08   94.80   94.51   7399   97848     Traded on AFT, At Open Interest Sign. see for previous day.   If SePORT STEERING OPTIONS (LIFE)   DS00.000 points of 100%     Softes
SPR Linked Dis	Sep   94.35   94.42   +0.07   94.42   94.35   887   10018	Sep 94.72 84.79 +0.07 94.79 94.72 9499 74518 Dec 94.51 84.60 +0.08 94.80 94.51 7399 97848 Traded on AFT, At Open Interest Sign, are for previous day.  If SHORT STEPPLING OPTIONS (LIFE) ISSOLODO points of 100%  Strice Price Mer Jun Sep Mer Jun Sep Price Jun Sep 9475 0.07 0.17 0.20 0.01 0.08 0.23 9500 0.01 0.08 0.10 0.20 0.22 0.38 9525 0 0.01 0.04 0.44 0.42 0.57 950. Vol. trad, Calls 1435 Puts 3200. Previous day/e open int., Calls 202765 Puts 167509
SPR Linked Dis	Sep   94.35   94.42   +0.07   94.42   94.35   887   10018	Sep 94.72 84.79 +0.07 94.79 94.72 9499 74518 Dec 94.51 84.60 +0.08 94.80 94.51 7399 97848 Traded on AFT, At Open Interest Sign. are for previous day.  If SHORT STEERLING CAPTIONS (LIFE) 0500,000 points of 100%  Softes Price Mar Jun Sep Mer Jun Sep PUTS Price Mar Jun Sep Mer Jun Sep B475 0.07 0.17 0.20 0.01 0.08 0.23 9500 0.01 0.08 0.10 0.20 0.22 0.38 9505 0 0.01 0.08 0.10 0.20 0.22 0.38 9505 0 0.01 0.04 0.44 0.42 0.57 8sc. vol. trad, Calls 1403 Puts 1200. Previous day/e open Int., Calls 202789 Puts 167509  BASE LENDING RATES
SPR   Linked Dis	Sep   94.35   94.42   94.05   94.42   94.35   887   10018	Sep   94.72   84.79   +0.07   94.79   94.72   94.99   74518     Dec   94.51   84.60   +0.08   94.80   94.51   7399   97848     Traded on AFT, At Open Inferent Sign. are for previous day.  If SePORT STEERLING CAPTIONES (LIFED) ISSOLODO points of 100%
SPR Linked Dis	Sep   94.35   94.42   94.05   94.42   94.35   887   10018	Sep   94.72   84.79   +0.07   94.79   94.72   94.99   74518     Dec   94.51   84.60   +0.08   94.80   84.51   7399   97848     Traded on AFT, At Open Interest Sign, are for previous day.   If SePORT STEERLING OPTIONS (LIFE) ISSOLODO points of 100%     Strike
week opp         3.44         3.68         3.94         4.32           SDR Linked Da         3°a         3°a         3°a         4           acok opp         3°a         3°a         3°a         4           cut Unrised Da         3°a         3°a         3°a         4           cut Unrised Da         and particles of the proper state and particles of the marked by box reference busines at 17am each working cay. The bornes are Bornes Trust, Barriers         Bornes and Roman Trust, Barriers         Because and Roman Trust, Barriers         Con and SDR Linked Deposits (bot).           EURO CURRENCY INTEREST RATES           Man 15         Short         7 days         One         Three         Six         One           form         notice         month         month         month         month         One           betyon Franc         6°a	Sep   94.35   94.42   40.07   94.42   94.35   887   10018	Sep   94.72   84.79   +0.07   94.79   94.72   94.99   74518

Est. vol. Open int.

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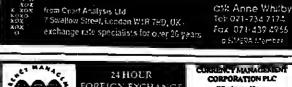
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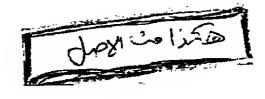
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Sat Mor 12: Tahvan Weighted Price 5277.10; Koren Comp Ex 903.42. Base values of all indices are 100 except: Australian Maring = 500, Austral Traded, BELCO, HEX Gain., MB Gain., SBF250, CAC40, Euro Top-100, ISEO Overalt, Torontal Marinson and DAX - all 1,000, USE Gold = 255.7; USE 26 tradistricts = 254.3; NYSE All Common = 50 and Standard and Marinson and DAX - all 1,000, USE Gold = 255.7; USE 26 tradistricts = 254.3; NYSE All Common = 50 and Standard and Marinson → Toronto will Closed, all University A. 1 SISS/DAX after-hours indice: Mar 15 - 2178.81 +9.51

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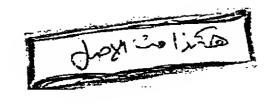
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#### Economic news fails to give Dow impetus

Wall Street

US share prices slipped yesterday morning in spite of a rally in the bond market and more favourable news on the economy, writes Frank McGurty in

By 1 pm, the Dow Jones Industrial Average was 2.74 lower at 3,860.24, while the more broadly based Standard & Poor's 500 was up 0.58 at 467.97. In the secondary markets, the American SE composite was off 0.21 at 467.85, but the Nasdaq composite managed to add 2.27 at 795.07.

After ignoring further weakness in the US Treasury market the previous session. stocks were unmoved by yesterday's rehound in hond prices. At best, share prices struggled into positive territory during the course of the morning, aided by some solid numbers on industrial production, coupled with a tame report on producer price

The Labor Department reported a 0.5 per cent increase in the Fehruary producer price index. but the stronger-thanexpected reading was largely attributed to a blg jump in energy prices, due to harsh winter weather last month.

Excluding energy and food, producer prices inched 0.1 per cent abead, against a consenous forecast of 0.3 per cent.

The encouraging figure triggered heavy buying of the benchmark 30-year government bond, which is especially sensitive to inflationary expectations. Yields fell well below the worrisome 7.0 per cent level, giving some breathing space to equity investors troubled by a swift rise in long-term interest rates in

Still, enthusiasm was

recent weeks.

restrained, with most of the blue chips showing little movement during the first half of the session. By the afternoon, most indices were drifting into negative territory. The Nasdau. buoyed by financial and transport issues, was the exception. Kemper surged \$20%, or nearly 50 per cent, to \$61% since the close of NYSE trading the previous session. The stock took off in overnight trading on news of a \$2.2bn takeover bid for the financial services concern launched by GE Capital. The announcement came just as Monday's session

was drawing to an end. Overall, the financial sector showed the most strength. Among the Dow industrials, JP Morgan, up \$1 at \$65%, delivered one of the best perfor-

revealed that it would back a proposed restructuring plan for Banco Espanol da Credito, the ailing Spanish bank in which it holds a 7.9 per cent stake.

Dreyfus, the mutual funds group to be acquired by Mellon Bank, picked up \$1% to \$49. Among insurance stocks, several groups benefited from a "strong buy" recommenda-tions by Mr Steven Gavios, an analyst with Kidder Peabody in New York. Chubb climbed \$1% to \$74%, General Re was up \$1% at \$106%. American international jumped \$2% to \$85% and Marsh & McLennan added \$% to \$82%.

Elsewhere, Pepsico was given a lift from an upgrading by AG Edwards & Sons. The stock gained \$1% to \$37. Time Warner continued its impressive run, climbing \$1%

Canada

Toronto continued higher at midday, fuelled by industrial, transport and banking stocks, as well as by an air of renewed economic confidence.

The TSE 300 composite index rose 16.48 to 4,486.84 at noon. Transportation issues led the market forward with a jump of 47.66, or 1.2 per cent, to EUROPE

#### Domestic component in bourse revival

Bourses found both domestic and international grounds for yesterday's gains, writes Our

Markets Staff.

PARIS, up nearly 2 per cent, was little affected by the US PPI figures, finding other and various reasons for the rise. including lingering hopes of a Buba rate cut tomorrow, as well as support from the

futures market.
The CAC-40 index closed 43.50 higher at 2,258.52. There was strong activity among media stocks. Canal Plus, in particular, was one of the session's most active performers, adding FFr54 or 8 per cent to FFr1.050. It was suggested that the group was helped by reports that the government was reviewing its request for a financial commitment towards the development

of a cable network. Lyonnaise des Eaux-Dumez the construction group, up FFr8 at FFr592, announced that its Dumez and GTM-Entre-pose units would form a joint venture. GTM dipped FFr28 or 5 per cent to FFr480. on the

Euro Disney, suspended limit down at one stage during the morning, recovered to close the day up 85 centimes at FFr34.70. FRANKFURT consolidated most of Monday afternoon's gains, the Dax index showing a sion rise of 20.42, and moved

Profit-taking following Mon-day's rally depressed share

prices, and the Nikkei 225 aver-

age finished marginally easier

after moving within a narrow

range on technical trading, writes Emiko Terazono in

The index lost 17.30 at

20,508.85 after a day's high of

20,654.17 in the morning and a

low of 20,458.85 in the after-

noon. Early buying by foreign

investors supported equities, but the Nikkei 225 was caught

later between profit-taking and

Traders were not discour-aged by the falls because vol-

ume was beavy, with some

iese fund manager said tha

while share prices still looked

expensive on a price/earnings ratio basis, the risk of a fall in

values had declined, helped by

the fact that the economy

seemed to have bottomed out Rises outpaced falls by 550 to 449, with 147 issues unchanged.

The Topix index of all first

section stocks added 3.07 at

1,642.94 and the Nikkei 300 gained 0.43 at 302.31. In London

the ISE/Nikkei 50 index firmed

Machinery issues drew buy

ing after the release of favoura-

ble data showing an increase

in industry orders. Minebea rose Y33 to Y748 and Nachi

The yen's retreat against the dollar supported high-technol-

ogy issues. Sony put on Y30 at Y6,330 and TDK Y50 at Y4,450.

However, some issues which

had improved on the multime

dia theme declined. Nippon

Telegraph and Telephone dipped Y2,000 to Y952,000 and

A flurry of activity before the expiry of futures and options lifted equities in late trading. The overall index advanced 98

to 6,254, industrials 105 to

Anglos climbed R4.50 to

6,099 and golds 3 to 1,967.

R229.50 and SAB R2 to R92.

173,78 171.47 115.48 151.58 152.13 178.97 146.31 148.46

Fufitsu eased Y10 to Y1.040.

**SOUTH AFRICA** 

Fujikoshi Y9 to Y443.

3.75 to 1,363.71.

arbitrage buying.

Tokyo

on again after hours with the This-indicated Dax closing at

Brokers said that Monday afternoon's gains reflected Morgan Stanley's raising of its recommended weighting in German equities. Turnover rose again, from DM8.5bn to DM9.5bn.

Sentiment was lifted hy Bayer which, unexpectedly, said that it would hold the dividend at DM11. After a DM2.50 rise on the session the chemical group rose another DM4.50 to DM380 after hours.

Relative strength continued in financials, in Siemens as it caught up with other hlus chips and in Volkswagen. But the most striking Dax stock gain was in Schering: after an average response to Monday's progress report, the pharma-ceutical group put on DM37, or 3.6 per cent to DM1.073.

Mr Mark Tracey of Goldman Sachs said that there were six reasons for being bullish about Schering: significant margin expansion in core pharmaceuticals; Betaseron, the new multiple sclerosis drug; cost savings potential; improvements in production techniques; strong cash flow, and benefits from AgrEvo, the joint venture with

Hoechst in agrochemicals.

AMSTERDAM firmed with strong interest seen in the heavily weighted issues, DSM

FT-SE Actuaries Share Indices 13.00 14.00 15.00 CZ000 FT-SE Eurotrack 100 1465.65 1464.37 1465.16 1464.80 1464.82 1467.83 1468.29 1469.36 FT-SE Eurotrack 200 1594.67 1503.35 1504.23 1504.61 1505.00 1506.66 1506.62 1513.24 Mer 11 Mer 10 Mer 9

and Akzo Nobel, for example, adding a respective F1250 and Fl 2.80 to Fl 124.40 and FI 228.20.

The AEX index strengthened

Hoogovens, which is expected to release 1993 results tomorrow that are broadly expected to reveal another substantial loss, gained F11.50 to F168.70. Analysts expect the steel group to begin its return to profitable operation in 1994, with the likelihood also that dividend payments will be

Wolters Kinwer, the publisher, which satisfied investors with its 23 per cent gain in 1993 profits, added Fl 1.50 to F1 119.50.

ZURICH finished higher on the back of firmer US bonds, which rose after the release of the US PPI figures. The SMI index rose 36.4 or 1.3 per cent to 2,906.9 but trading volume

Roche certificiates, the most

Region depressed by lack of foreign interest

active issue, put on SFr140 to

SMH bearers slipped SFr20 to SFr880 amid doubts about further growth in the watchmaker's market penetration, and the view that the Swatchmobile small car project still had a long way to go.

Surveillance rose SFr70 to SFr2,110 after the inspection and verification services group said that it expected its 1994 results to be in line with the 1993 outcome.

MILAN maintained its positive tone in spite of some sell-ing ahead of today's end of the monthly account. The Comit index added 4.28 to 678.06.

Demand from domestic funds and foreign investors helped some industrials and blue chips higher. Fiat rose L33 to LA.998, Olivetti L55 to L2.510 and Montedison L21 to L1.211.

Banco di Napoli fell L27 to L2.141 as Moody's, tha US credit ratings agency, said it had placed the bank's

review for possible downgrade. The recently privatised banks remained firm: IMI rose L27 to L12.640 and Credito ftaliano put on L15 to L2,659. BCI added L125 to L6,337, ahead of the first quotation tomorrow of its privatisation shares. The new shares, sold by public offer at L5,400 without the L200 dividend, were quoted on the London grey market yesterday at around L6.100.

MADRID gave credit to futures, foreign bourses and domestic bonds as the general index rose 4.35 to 345.23 after a last minute spurt of buying.

Turnover rose to Pta32.14hn There were specific interest rate hopes ahead of tomorrow's Bundesbank meeting, and the interest-rate sensitive utilities responded, showing the best gains of the day with Iberdrola, tha most active stock, Pta25 higher at Pta1,105.

TEL AVIV broke a four-session losing streak on buying by domestic pension funds, the Mishtanim index shooting up by 13.2, or 6.75 per cent to 208.82. This followed share price manipulation scandals which had dropped the hlue chip index by nearly 25 per cent from its 1994 high.

Written and edited by William Cochrane, John Pitt and Michael

#### Venezuelan equities are

Transaction costs could rise, writes Joseph Mann

upset by tax proposal

week by the Venezuelan government covering most debit transactions at domestic banks has sent tremors through the Caracas stock

On March 9, Mr Julio Sosa Rodriguez, Venezuela's minister of finance, presented a series of tax bills to congress, including a proposed tax of 0.75 per cent on debit transactions at banks that will primarily affect the country's private

On the same day, the Carper cent decline, and over the week retreated more than 10 per cent in local currency

The index recovered more than 3 per cent on Monday, but at midday yesterday, prices were beginning to weaken once more. The market underper formed the region last year, showing a 14 per cent gain in dollar terms, while turnover slipped by 28 per cent com-pared with 1992

Although equity investors in Venezuela were - and are worrled about a number of problems, the proposed debit tax, as it is now being called, has given them a new bead-

The tax, still to be approved by congress, has also raised fears that trading will move offshore and that foreign investors will find the country's equity market less attractive. With some exceptions, banks will deduct the tax from the accounts of individuals or com-

panies whenever they order a debit to their accounts, including issume cheones or making an electronic payment.

A stock transaction requires at least four cheques or debit orders, each of which would be taxed under the proposal. The new levy would increase transaction costs significantly for

NATIONAL AND REGIONAL MARKETS

The World Index (2170) .... 174 65

Comment. The Financial Times Littled, Coldman, Latest proces were unbrushed for the edition.

new tax proposed last have an even greater effect on office on February 2. It is try-

has asked the government to exclude exchange transactions from the proposed levy. She warned that investors, especially from overseas, would be driven away, noting that the tax would have theoretically Composite Index ('000)

added more than \$54m to last year's transaction costs.

Brokers and investors are also worried that stock deals will simply move offshore in an effort to avoid the tax. Ms Aguirre pointed out that a similar tax in Argentina was eliminated soon after it was applied when the authorities realised that much of that stock exchange's activities had moved to Uruguay; many Argentinians also decided to carry out their daily business activities in casb rather than

The government has tried to soften the impact of the debit tax by noting that it will only be in effect intil December 31 and that, originally, a tax of 2 per cent had been discussed. The new tax is a sign of the desperate fiscal situation of

administration, which took

FT-ACTUARIES WORLD INDICES

Ms Norys Aguirre, president of the stock exchange - the Bolsa de Valores de Caracas -

high inflation, declining income from oil exports (one of its main sources of Treasury revenue), a banking crisis and other problems. It also hopes to raise additional revenues through a proposed luxury tax and aims to reduce income tax Another tax initiative involves lifting the ceiling on

ing to cope with an economy in

recession, a large fiscal deficit.

corporate and individual income tax from 30 per cent to 550m shares changing hands, 34 per cent. While this is not a against Monday's 514m. A Japmen generally are unhappy as they work their way through the second year of a recessionary economy.

The failure last January of Banco Latino, the country's second largest bank, created an unexpected problem for the new government and provoked crises at several other banks. The cash-strapped government has so far been forced to sup-ply Latino and other troubled banks with some \$3bn in finan-

o-one can say for sure how the debt tax will fare in the new congress, where the two political parties supporting Mr Caldera together hold under 25 per cent of seats in both the chamber of deputies and the senate.

The proposal got off to a bad start when Mr Henry Ramos, a spokesman for the Democratic Action Party (AD), said the tax had never worked anywhere else.

Mr Caldera's parties need the support of one of the other three, larger political blocs in congress in order to gain approval of the debit tax and other tax proposals. So far, none of the three groups - AD, the Christian Democrats or the left wing Radical Cause party - has indicated that it will President Rafael Caldera's

Mining issnes, which had risen in tandem with the gold price, were lower. Mitsui Mining and Smelting declined Y9 to Y416 and Sumitomo Metal Mining Y4 to Y928.

Banks rose on arbitrage bnying, Industrial Bank of Japan firming Y10 to Y3,290 and Sakura Bank Y60 to Y1,390. In Osaka, the OSE average moved up 65.55 to 22,438,38 in

volume of 172.7m shares. Roundup

Weak turnover and declining share prices typified the region. Kuala Lumpur, Jakarta and Karachi remained closed

HONG KONG's turnover was

visional HK\$3.47bn, against figures of more than HK\$10bn in late-1993 when the market was booming. The Hang Seng index ended a net 116.51, or 1.2 per cent, down at 9,863.56 after an early 120 point gain.

US funds took profits and selling mainly hit blue chips, with Henderson Land falling HK\$2.75 to HK\$47.75, Sun Hung Kai Properties HK\$1.50 to HK\$58.50 and Hutchison Whampoz HK\$1.25 to HK\$32.25.

TAIWAN saw turnover shrink to its lowest this year, down from T\$40.39bn to T\$34.29hn, as the weighted index finished 59.63, or 1.1 per cent, weaker at 5,274.24, just one point above its 1994 low.

The heavily weighted financial sector was among the biggest losers, with China Trust and China Development down T\$2 aplece to T\$63.50 and T\$119 respectively. It was said that reduced huying by foreign institutions was hurting the

COLOMBO blamed foreign

inactivity or selling, local institutional profit-taking and a drive for liquidity in the retail market as the all-share index dropped a further 31.92, or 3.5 per cent, to 1,268.38. Turnover expanded from

Rs116m to Rs142.8m. BOMBAY edged up, but bro-kers said that trade was virtually paralysed by the imple-mentation of a ban by the of India on forward trading. The BSE 30-share index rose 11.06 to 3,758.28.

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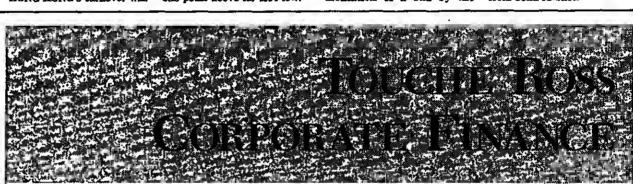
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The SEBI, India's main regulator for capital markets, had said that the carry forward. or badla system of trading, was leading to excessive speculation, and that it would allow resumption of the system only if stock exchanges implemented several measures to make trading more transparent.

NEW ZEALAND defied the regional trend, the NZSE-40 index moving ahead 27.98 to 2,249.41 as the market found support from stronger European bourses and a more stable local bond market.



**Touche Ross Corporate Finance** are pleased to have acted as lead advisers to:

#### Calder Group Limited

responsible for initiating, negotiating and arranging the £84.5 million MBI

of part of the Engineered Products Division out of:

Cookson C

Solicitors to Calder Group Limited: **MACLAY MURRAY & SPENS** 

MORGAN GRENFELL DEVELOPMENT CAPITAL LIMITED

Debt provided by: MORGAN GRENFELL & CO. LIMITED

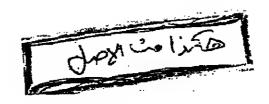
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For further information please contact David Shearer, Partner in Charge of Corporate Finance in Scotland on 041 204 2800

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AT&T's desktop video system at the Network Operations Centre in

digital telephone and visual system that allows callers to see one

another in a window on their screens while they work on documen

ter, New Jersey. It brings together tel

#### FINANCIAL TIMES SURVEY

#### INFORMATION AND COMMUNICATIONS TECHNOLOGY

Wednesday March 16 1994

#### IN THIS 20 PAGE SURVEY

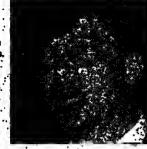
#### A whirluing of innovation

The key technologies emerging as the datalyst of the next wave of business and social change have computing power and communications in common. Business assumptions will be repeatedly challenged in the next few years as technological advances sweep the world of communications. Multimedia, mobile computing and groupware are among the hot topics, says Alan Cans. Page 2

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Microsoft, the world's targest
personal computer software
company, is harmassing its
resources to a new goal: leadership
in the design of multimedia systems.
It is already investing over \$100m s.
yeer - out of a research and
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the critical operating software. Sill
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Shopping in the future: Home shopping: in the long term, customers may not metaly stare at video screens at home, but instead a prospect that still sounds like adjence fiction - they may don headests that allow them to wander around virtual reality stores, or even virtual shopping metils, writes Neil Suckley. Page 6

Advances in the the electronic office: The paperless office is as far off as ever for what might be termed wide-ranging jobs. But for highly structured tasks, such as fanding trainance claims or invoices, cutting down on paper can lead to substantial gains in productivity, writes Jola Shillingford. Page 5

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Big telecom operators seek alliancess The emergence of global service providers able to meet the needs of multinational corporations is being allowed by cultural and technical problems, writes Mark Newman, Page 7

Tricky halantoing act for equipment vendors: Leading telecommunications equipment supplies are well-placed to benefit from emerging Asian markets growth, but they will have to get the balance, right between selling old products into new markets, and bringing out new products for their older clustomers in the western world. Page 8



Ciobal mobile communications: Paul Cuigley cher's the rapid progress towards a mobile milentum in

Outsourcing: a make-orfireak factor: With the term
computer services, emphasis is
shifting away from computers and
towards services. That is one
ceason why companies once
dedicated to hardware or software
are moving into facilities
management, explains Claire

Business Software Challenge: Once again, the UK's young software designers have the opportunity to win cash, hardware and software prizes to the value of £20,000 in the Business Software Challenge '90s design competition - just launched, for its fourth year.

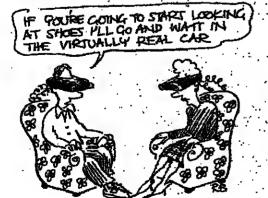
History often repeats itself: Repospective: the development of Britain's computer manufacturing industry rap into problems from the start. Gentus was let down by poor marketing and tack of government funding, writes John Kavanagh. Page 13

Moves towards systems integration: The perceived demend for systems integration has attracted a growing number of supplier and services companies, it looks like an expensive option for the foresecable tuture, writes Philip Manchester. Page 15

Cutting down the paperworks Case studies on how companies are successfully applying document image processing. Page 15:

New devices: great expectations: Personal digital assistants (PDAs) and personal communicators represent the next big computer market. These small computer devices represent the logical progression of computer technologies as they move from the desktop, to portable computers, to the lap-top and finally to the so called palm-top. Page 15.

Immoverta or periate: Canada's companies in the IT arena demonstrate that to survive, suppliers have to show greater speed and originality then their US competitors. Page 16



The interaction of created worlds: The prospects for virtual reality systems: the convergence of computers and communications is speeding developments in this area. Page 17

The factory of the future: After 20 years of dramatic developments in information technology used by manufacturers - from the earliest computer-aided design systems to modern relational databases and shopfloor management systems - there is no lat-up in the pace of change, writes Andrew Baxter. Page 18

The key to faster software; in the ultra-competitive business world of the 1990s, a company's ability to create new information systems rapidly is a pre-requisite for survival. Page 19

**Weak links mean big risks:** As increasing amounts of data are moved around the world, the need to maintain security and integrity has become paramount. Page 19

Editorial production: Michael Wiltshire

#### The shape of things to come

Floating down a Venetian canal or walking under the arched ceilings of a medieval cathedral could all happen in the not-too-distant future without the traveller leaving the armchair – see picture,

By holding a spaceball that replaces the remote control pad - the armchai traveller can explore the interface and enhanced three-dimensional-type pictures on the home TV. This futuristic tourism is just one of the TV-based home services being developed by BT Laboratories at sham Heath, near Ipswich in Suffolk Known as VRHS (for virtual reality home services), engineers are working on a range of Intuitive interfaces that could transform the way that TV is viewed. ☐ Pictured left is AT&T's video-conference system the result of the collaboration between the information systems and

business equipment units.



Sightseeing by spaceball: designer Andrew McGrath uses a virtual reality system to explore the antiquities of sixth century basilics, created on screen. These systems could provide services of such realism that a viewer feels as if he is walking through the screen. The technology could also create a virtual shopping mail where items such as clothes could be viewed. There are also financial, educational and entertainment scenarios.

More than ever dedicated to bringing you the world closer.

As corporate networks are key to the development of business worldwide,

France Telecom has always been providing advanced telecommunication solutions, everywhere business requires them.

Through a strategic alliance, France Telecom and Deutsche Telekom want to go further in better serving major international elients.

Already partners in Eucom and Eunetcom, France Telecomaind Deutsche Telekom signed, on December 7th, 1993, an agreement to set up a joint venture to provide companies with absolute quality telecommunication solutions. This new joint venture, designed as a dedicated structure with worldwide presence, will propose a global homogeneous network offer, allowing firms,



The key technologies emerging as the catalyst of the next wave of business and social change have computing power and communications in common. Multimedia, mobile computing and groupware are the most promising business opportunities over the next three

years. According to a group of computer companies canvassed last month by Input, a US-based marketing consultancy, client-server computing, networking in its various forms and document image processing were all seen as providing continuing business, but there was less enthusiasm for last year's fashionable topics including artificial intelligence and graphic informa-

tion systems.

The computer company's choices are supported by a diversity of evidence.

Deals like Viacom's \$10ho acquisition last month of Paramount Communica-

tions, the US information and entertainment group, exemplify the excitement multimedia is generating. In January 1993, 150 US newspapers published a total of 25 articles about multimedia: In December, the same newspapers published 425 pieces on the topic.

The market for notebook and subno-

tebook (band-held) computers is expected to grow at 20 per cent or more this year compared with only six per cent or so for the industry as a whole. Prices of subnotebooks seem set to follow their desktop equivalents downwards especially with the launch of the Compaq Cootura Aero at under £1000 and the relaunch later this year of IBM's Thinkpad 500. There is continuing interest in personal digital assistants (PDAs) combining computing power with communications despite a muted market response to the launch of Apple's Newton PDA.

Newton PDA.

The market for groupware – software designed to run oo personal computer networks to support the co-ordinatioo of office activities and exemplified by Lotus "Notes" – looks likely to double in the US and Europe over the next five years. According to Ovum, a London-based information technology consultancy, the installed base of PC networks has now reached the critical mass occessary to provide the incentive for the adoption of groupware.

#### Elimination of barriers

What has changed over the past few months is the speed at which these esoteric technologies are becoming realities. Last month, for example, 400 senior telecommunications executives from companies including AT&T, BT, MCI and Mercury, packed a seminar in the US to hear claims that business and society would be transformed by multimedia through the elimination of barriers of time, space and form.

orm.
Opening the conference, Mr Rudy Puryear, managing partner, strategic change, at Andersen Coosulting, warned that

#### A whirlwind of innovation

Business assumptions will be repeatedly challenged in the next few years as technological advances sweep the world of communications. Multimedia, mobile computing and groupware are among the hot topics, as **Alan Cane** explains here



Many of the new advances in information technology are driven by the demands of the financial world. Observers believe that multimedia, for example, will initially be driven by business applications.

every business assumption would be repeatedly challeoged in the next few years: "The mean time between surprises is sbortening," he said.

Most of the corporations present were already investigating the potential of multimedia; most had only developed a serious interest in the topic in the past year.

To a large extent, their enthusiasm is being driven by commercial demands, rather than customer-need. Telecommunications companies like AT&T, MCI, BT and Mercury oeed to generate better margins from their networks by moving from "pots" to "pans" ("plain old telephone services" to "pretty awesome new stuff"). Computer companies need to find new ways to encourage customers to buy more computer power as prices fall to commodity levels. Amoog those which have already declared an interest in multimedia are Apple Computer, Intel, Silicon Graphles and Microsoft as well as the games

market leaders Sega and Nintendo.

Mobile computers and groupware are firmly established in the market place. There are, bowever, question marks remaining over the potential of multimedia. It has not been helped by confusion over what the term implies.

The essential definition is the transformation of information of all kinds – textual, graphical, still and moving video pictures – into computer language ("bits") in which form it can be transmitted down a single communications channel – which could be a telephone line or a compact disk – to a modified television set or per-

sonal computer in the office or home.

The service is interactive; customers can send beck instructions and requests through the network. What is important is that different bits of information are comingled in the transmission stream; the system is responsible for sorting out which are text, which are video and so on.

Dr Nicholas Negroponti, director of the Massachusetts Institute of Technology media laboratory, believes that the impact of multimedia on the business and social world is inevitable. He points to four

☐ First, the "disappearing desk top" as executives become peripetetic, using mobile computers on the move or while working from home.

☐ Second, continuing miniaturisation

which will make complex and bulky technologies such as speech recognition for pcs simple and easily transported.

Of Third, increased use of the so-called

Cl Third, increased use of the so-called "Negroponti switch" – the use of fibre to bring multimedia to the office and home leaving precious broadcast bandwidth for mobile telephony and computing.

mobile telephony and computing.

Description Fourth, the use of intelligent software "agents" to roam through electronic libraries gathering information of interest to their owners.

AT&T already has systems which make use of this advanced concept. Four elements are required for the prof-

itable development of multimedia systems:

Powerful computers are needed to store, process and keep track of the bits.

High capacity telecommunications channels are needed to transmit them to office or home.

☐ There has to be a ready supply of information to feed tha system.
☐ The customer must be willing to pay

for the new services,

All the technological elements for full scale multimedia are pretty well in place: the computer power, software and networks capable of transporting millions of bits a second at reasonable cost. Fibre optic technology is now staggeringly powerful, capable of carrying 150,000 times the volume of conventional telephone wires. Fibres can be spum from glass so pure that It is possible to see through a block 70

miles wide

Chip technology is making possible the computing power to sort through all those hits. Dr Wei Yen, a senior vice-president at Silicon Graphics, e US company which specialises in the manipulation of electronic images, said that the necessary computing power would he aveileble through the development of microprocessor chips called "media engines" with the power of a supercomputer but cost only \$200 (£136). His media engine would be available next year.

Given the ability to make one hillion

Given the ability to make one hillon calculations e second, be said, presenting life-like images on the screen did not present technical difficulties – "reality is all mathematics." he smiled.

The chips, which will process hits 64 at e time like a supercomputer, will be incorporated first in Nintendo's Reality Immersion Technology, claimed to allow players to step inside real-time, three dimensional worlds.

Nintendo's Involvement gives the clue to the principal remaining problem: the search for attractive and marketable services to feed the multimedia mechine. Entertainment is an obvious option.

#### New electronic services

Time Warner Cable, the second largest cable operator in the US, intends to launch this eutumn one of the largest tests yet of multimedia services. It will, in the first instance, allow customers to watch videos delivered via their telephone lines. The intention, however, is eventually to offer e "full service network."

"full service network."

About 4,000 homes around Orlando in Florida are being wired up for the trial, which could pave the way for e fuller range of electronic services, such as home banking and shopping.

panking and snopping.

The Orlando trial uses e combination of fibre optics and coaxial cable for transmission; in the UK, BT intends to offer evideo-on-demand service offering acceptable picture quality over ordinary tele-

The intention had been to open the service next month; Time Warner announced it would be delayed earlier this month to allow — "additional refinements of the underlying system software and the set-

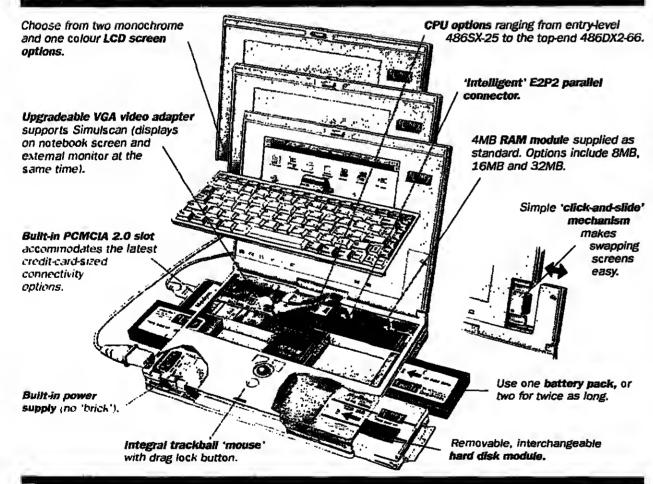
top terminal."

Coupled with the collapse at about the same time of the proposed merger between Bell Atlantic and the cable operator Tele-Communications Inc., observers were ooting that the path to the establishment of successful multimedia systems will not be

Many observers, indeed, believe that multimedia will initially be driven by husiness applications. An option is telecommuting, France Telecom is experimenting with a range of technologies including electronic mail and groupware which could be combined so employees can work from home or electronic telecommuting centres.

☐ The multimedia race: pages 3 and 4. ☐ Developments and applications for virtual reality technology, page 17

#### NB-400 notebook PCs from Elonex.



#### Now you don't have to compromise.

Until now, choosing a portable PC meant compromising on power and flexibility. Elonex's NB-400 notebook PC range changes all that. Designed from scratch by Elonex to beat the best in the world, the NB-400 range matches the versatility and processing speeds of many bigger and heavier machines.

The NB-400's unique modular design means that just like dosktop PCs, they can evolve as technology advances and your needs change. You can simply upgrade the CPU. RAM, screen, independent batteries or hard disk as and when you need to.

There are five NB-400 hard disk modules, for example, ranging from SOMB to a massive 450MB. These can also be used with conventional desktop PCs. A communications cable comes as standard for loading applications or trading data with other PCs. An external 3% disk drive is also available as an option.

Flones's NB-400 notebooks offer a choice of three different interchangeable LCDs. Options include a mono backlit LCD, a low-power mono LCD with adjustable backlighting and a brilliant passive matrix colour LCD. More will be added to the range later.

NB-400 battery packs offer longer than average battery life. You can also connect directly to a car or boat bettery if you wish. You might be surprised to learn that all this power and flexibility is also very affordable. In fact, at around £1.400 + VAT for a fully configured system, you'll find Elonex NB-400 models cost no more

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Personal computers: the technology battle intensifies

### **Shoot-out between PowerPC and Intel's Pentium**

pple Computer's introduction of the first PowerPC Macintosh personal computers blows the starting whistle on what promises to be one of the toughest technology competitions in the history of the personal computer industry.

On the PowerPC team, together with Apple, will be Motorola and International Business Machines. Together, the three compenies have co-developed a microprocessor architecture which they aim to establish as a new industry standard for PCs. They face the reigning champions of the PC microprocessor market, Intel and its league of PC-manufacturing technology partners, led by IBM.

One of the most curious aspects of this contest is that IBM is playing oo both sides. Long e close ally of Intel, IBM is the lergest manufacturer of Intel microprocessor-based PCs and says it intends to remain so. However, the computer company is also a co-developer and manufacturer of PowerPC and has stated that the new technology is central to its future strategy.

This amhiguity aside, the contest is a straight-forward shoot out hetween PowerPC and Intel's Pentium, the latest version of its long-established "x86" microprocessor lineage.

microprocessor lineage.
PowerPC has a Reduced Instruction Set
Computing (RISC) architecture.
Theoretically, this suggests that it may be
faster than Intel's Pentium. However,
PowerPC lacks the critical software base
of Intel's microprocessors and its
performance in commercial systems is

relatively unproven.

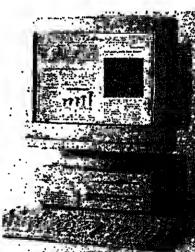
In contrast, Intel's Pentium has a huge heed start in the marketplace as the successor of the widely used Intel 386 and 486 microprocessors, the "brains" of most

PCs in use today.

The Intel chips run Microsoft's popular MS-DOS and Windows operating system software and the thousands of application programs designed to work with them.

Apple's debut of PowerPC-hased Macintosh computers will be e critical test of the new technology. Apple is expected to launch three "PowerMac" computers ranging in price from about \$2,400 to about \$4,000 to replace Its current "Quedra" models aimed at business users. Apple says that it intends to convert 40 per cent of its Macintosh shipments to PowerPC by year's end, with the complete changeover occurring within three to four years.

For Apple, the PowerPC represents an important transition from Motorola's 68000 line of microprocessors, which it has used since the introduction of the Macintosh computer 12 years ago. Apple needed a new microprocessor to keep pace with competitors using Intel's chips, but its decision to join with IBM and Motorola in developing a hrand new architecture makes the transition more risky.



IBM and Apple aim to establish a 30 percent share of the PC market for the PowerPC by the end of the decade. Microsoft has announced plans to port Windows NT to the machine

PowerPC's may have e speed advantage over Pentium. However, among existing Apple customers the PowerMac may be judged as much for its compatibility with existing Macintosh software as for its raw performance.

This could give the PowerPC e rough start in the personal computer market. According to industry reports, about 90 per cent of existing Macintosh software will run on the new Apple computers, but only via emulation software which will instifute emulation software which will

significantly slow down performance.

Thus, although PowerPC may be theoretically capable of outpacing the Intel Pentium, that may not he the practical experience of the first users of personal computers hesed on the new

pple says that about 75 application programs designed specifically for the PowerMac will be available when the computers are introduced, and that hundreds more are in development.

Howevar, software companies are unlikely to make development of spplications programs for the PowerMac a high priority. Apple says that it expects to sell up to one million PowerMac computers in the first 12 months. Whila this would be a significant achievement for Apple, it presents a relatively limited market for software designed solely for the

PowerMac.
In contrast, Intel expects about 15 per cent of all PCs sold this year, or approximately seven million units, to be based on its Pentium chips. Most of the remaining 40m PCs will contain Intel 486 microprocessors. Thus, Intel-based PCs represent e far larger potential market for software applications than the PowerMac.

Therefore even if the PowerMac exceeds Apple's expectations, It will hardly make e dent in Intel's dominance of the personal computer microprocessor market.

Intel and its backers, meanwhile, are targeting Apple's existing market share, aiming to take adventage of the uncertainties created by the transition to PowerPC.

Apple, however, is not alone in its plans to offer PowerPC hased personal computers. IBM already offers e computer workstation based on the PowerPC microprocessor. The company is expected to introduce e broad range of "Power" machines for more general use, including portable PCs. But it is not yet clear how IBM will position these products relative to its strong Intel-based PC product line. IBM is also actively seeking PowerPC.

to its strong Intel-based PC product line.

IBM is also actively seeking PowerPC endorsements from other computer makers. The first, Canon of Japan, said recently that it will use PowerPC in e new range of office computers and work with IBM and Motorola to develop versions of PowerPC for use in hand-held and notebook-sized computers.

n Taiwan, PowerPC has attracted great interest among PC circuit-hoard manufacturers. However, these sub-system manufacturers are unlikely to take e leadership role in developing the PowerPC market. Instead, they tend to wait for demand to develop in the US market.

IBM says it has sold over 800 PowerPC "reference specifications" to PC manufacturers and software developers interested in developing products around the new technology. Computers that edhere to these specifications will eventually be able to run a smorgashord of operating systems and applications software, IBM says.

Microsoft has announced plans to port Windows NT to the PowerPC, and IBM's new Workplace OS will rum DOS. Windows, and OS/2 applications on the PowerPC. PowerOpen, another "multipersonality" operating environment, is being developed specifically for PowerPC systems by Apple and IBM.

Together, IBM and Apple aim to establish a 30 perceot share of the PC market for PowerPC by the end of the decade, leaving Intel with perhaps 60 per cent (the rest being clones of Intel microprocessors), down from about 80 percent today.

Thus while PowerPC may somewhat diminish Intel's market share, not even its most optimistic backers expect to overtake Intel's leadership in the microprocessor market in the short term.

In the longer term, tha outcome of the PowerPC versus Intel battle is likely to depend as much on software developers as on the relative merits of each type of microprocessor.

Louise Kehoe

#### 'Evolutionary rather than revolutionary'

icrosoft, the world's largest personal company, is harnessing its resources to a new goal: leadership in the design of

multimedia systems. It is already investing over \$100m a year - out of an research and development budget of \$473m - on the critical operating software. Mr Bill Gates, the company's founder and chairman, said earlier this month that the company had more people working on multimedia than

any other software group. The implication is that the company wants to establish its software as the global standard in multimedia just as its MS/DOS and Windows operating systems are the world standard for IBM's design of personal computers.

There have been some early clnes: Microsoft is already working with Sega, the Japanese games console mannfacturer, on an operating system for a new machine, although Mr Gates says the project is small and divorced from Microsoft's mainline operating systems

development. Some weeks ago, it bought Soft Image, a Canadian company which is market

Bill Gates, founder and chairman of Microsoft, has poured scorn on most of the multimedia trials in the US and Europe, reports Alan Cane. Microsoft is meanwhile investing \$100m a year in multimedia and aims to set the agenda in the technology

leader in the esoteric discipline of software for moving picture animation. The special effects in the film Jurassic Park are its work. Furthermore, it has announced it intends to test its multimedia software in

collaboration with Tele-Communications Inc.,(TCI), the largest US cable operator. A first fruit from the venture will be a new channel of programming aimed at the consumer market for computer hardware, software and accessor What Microsoft intends to

provide is the operating software which will manag the flow of information of all kinds on to high speed networks and the software which will connect it to personal computer operating systems in the home or office. It may also provide some of the applications – a personal money manar ment program, for example.

Mr Gates says "there are a lot of companies developing software for the 'information highway,' just as there were

unications engineer working on equipment for multimedia services which aim one day to bring

ment and information services into the home, using the facilities of an ordinary television set and the

telephone. Microsoft has had talks with BT among others about multimedia collaboration

in operating systems at the beginning of the personal computer business. Everybody who is doing multimedia software will have lots of pilots. Based on the quality of those pilots, some will

emerge stronger than others' Mr Gates said Microsoft would begin testing home multimedia services in the US and Europe in 1995. He did not expect substantial returns on his investment for five years, although he thought that there would be substantive developments in multimedia in 1996-97 with entire cities converted to

Interactive petworks.

Multimedia and the

information superhighway, the high-capacity network which will link vast repositories of informatioo with modified television sets or personal computers, are creating intense interest among computer companies telecommunications organisations and entertainment firms. They are jockeying to take advantage

of what are expected to be

opportunities. have seen as clectronic Bill Gates, however, argues markets for currencies or that most are taking the stocks will move into items wrong approach - "dead ends" were how he described them

"because the user-interface is so simple, and because they do not tie in to personal computers in the right way, the results will be disappointing. The revenue and the usage that comes out of them will oot justify the

■ hile most of the trials to date have been designed to exploit domestic multimedia, offering, typically, menus of video films for home viewing, Mr Gates says that husiness will make

hage infrastructure costs."

use of the multimedia first. "The first widespread use of these capabilities will be in husiness," he predicted. "It will involve things like video-conferencing and collaboration which would enable you to do your job without going into the office. Or it could belp companies find expertise to help them oot without the expert having to travel.

"The network itself could

create electronic markets able capability. to find a resource of any type.

of all types where chequeing references and other kinds

of working together can be done very effectively in "This will be done by move into the home. extending the range of the personal compoter. One of the

early symptoms will be very low cost video conferencing where a PC is conoccted up to an ISDN (integrated services digital network). Withln two or three years this will be extremely widespread. "The network operators

(Intel, which makes the microprocessors used in the majority of the world's personal computers, earlier this year announced a low-cost set of components capable of turniog a personal compoter into a video-conferencing

Mr Gates thooght that multimedia in the office would be evolotionary rather than revolutionary, driven by proven technologies like electronic mail - "the benefits of electronic mail are unbelievable. We could oot ran Microsoft without that

Today, some think of electronic mail and work

Internet (an open, publicly available compoter network spanning several continents) as separate things, but with some enhancements to Windows due in less than a year, we will bring all these

things together."
Once the technology and benefits have been established in a husiness environment. that would be the time to

Mr Gates was critical of the narrow range of many of the current multimedia trials: Some of the early pilots will be particularly embarrassing because they will oot have the breadth of applications."

running these pilots are acting against their own interests because they are going to prove exactly what they do not want to prove - that there will not be enough revenue generated to justify bullding the infrastructure."

"Uotil you have a broad range of applications, you will never be able to demonstrate the true potential of these systems. That is why instead of doing crummy pilots io 1994, we will start onr trials in 1995."

Hc extended his criticism to Oracle, the US database specialist with which British Telecommunications has formed an alliance to test



man in America, says the first widespread use of multimedia technology will be in the business world before it soreads to home entertainmen

interactive entertainment services in the home. Oracle will provide the software and systems integratioo: "I'm sure Oracle will change its approach because it is a terrible approach." he said.

to be seen against a background of intense competition in the pascent multimedia husiness. Furthermore, he has never been slow to promote Microsoft's efforts and pick holes in the competition.

The multimedia market is still in its infancy, writes Joia Shillingford

#### Computers which appeal to the senses

ultimedla hrings sound and video to the personal computer. Like sex, it promises to appeal to the senses. Unlike sex, multimedia has yet to appeal to a

However, one application which seems likely to increase the take-up rate of multimedia is desktop video-conferencing. The technology is also suitable for point-of-sale promotions. interactive educational/training software and - in very skilled hands - designing multimedia presentations. Here and on the following page we look at two areas with most potential: desktop videoconferencing and multimedia at the point of sale.

■ Desktop video-conferencing: Some computers now come fully equipped for videoconferencing, allowing users to transmit live video images of themselves to other, similarlyequipped users, and to see on their PC the person they are

For example, Sun Microsys-

pany, says its new SPARCclassic Unix workstation, which costs £4,340 (\$6,510), is the industry's lowest cost, fullyconfigured multimedia workstation. This includes camera, real-time video-capture and compression and a storage

But most users will have to buy a multimedia kit if they want to carry out a video-conference in a window on their personal computer. In April BT and Olivetti will

begin selling multimedia kits which allow pc users to do this. The BT-Olivetti kits will cost £3,595; they include a small video camera which sits on top of the PC, a card which slots into the PC, and software. In addition, the kit makes it

possible for users to transmit still video images, photographs or sound. BT says the kit will send video at 15-frames a second when it goes on sale. At this speed, video images

talking to has just come hack from a boozy lunch). So "meeting" someone for the first time via a desktop video-conference is not ideal if you want to make a good impression. It is more suitable for follow-up "meetings," where being able to see the person you are talking to may give a better idea of their reactions.

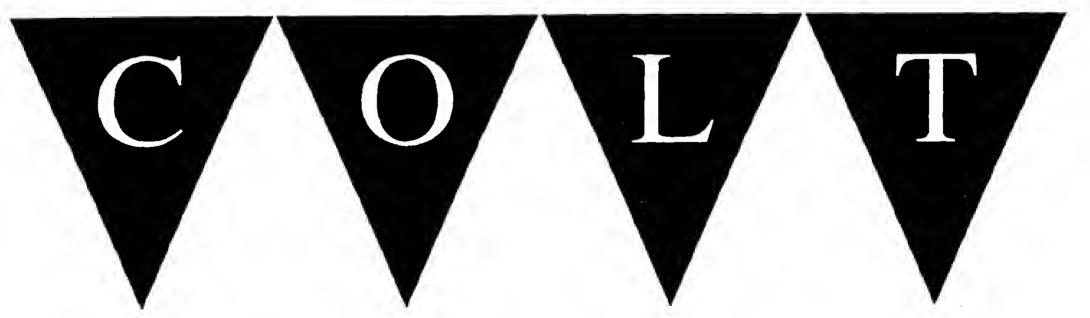
Will this form of communication catch on?

Yes - according to Judith Jeffcoate, of the research con will be rather jerky (it may Continued on next page look as if the person you are

owe 

## We're more than ust talk

CITY OF LONDON TELECOMMUNICATIONS



The Revolutionary Fibre Optic Telecommunication System 071 390 3900

data database engina, an

extremely powerful box dedi-cated to analysing customer

data. The price tag on the

entire Teradata installation is

around £10m, but this expen-

sive specialist tool is the only

option if Abbey National is to

exploit customer profiles and

mount direct sales campaigns.

programmes designed to repli-

cate and multiply buman knowledge. Barclays Bank is

employing Lending Advisor to

back up decisions on commer-

cial lending. Software licences

from supplier Syntelligence

cost upwards of 2600,000. If the

expert system can succeed in

producing a coherent and

sacure lending policy it is

The world of the expert sys-

tem is a clear example of IT

coming to be used as a preci-

sion tool. In the past, vast

banking IT projects stumbled

because computars were

employed in an indiscriminate

fashion. Banks have learnt to

money well spen

Expert systems are computer

#### Focus for all banking activity

full of cash. We have information about cash - that is our product." Thus, Peter Lazard. nead of technology strategy and research at Abbey National sums up the relation-ship between banking and

information technology, (IT). On the surface, computer technology has become the focus of all banking activity. The real assets of any financial institution are now locked away in digital form. The rise of the technology-driven bank has coincided with fierce commercial pressures and a relentless struggle to keep overheads

IT briefly served to offer a 'holy grail' during the 1980s. Banks signed up for buge projects on the grounds that more information meant better business. By and large, they ended the decade disillusioned. Computers had proved their worth, bandling vast quantities of data but they had not come cheap, and on the way banks found themselves employing a growing army of programmers

and systems analysts. With financial deregulation in the UK, retail banks have Despite the high cost of applying the latest information technology, the banks - faced with mounting competition - can no longer survive without persistent investment in this area

faced new competitors. Abbey National is a building society turned bank. Lazard notes that Abbey National has used computers for thirty years. Historically this meant large expensive mainframe machines. Falling hardware prices and the event of the micro-processor saw computing break out of the mainframe world. IT was suddenly available across the board.

"Technology was a barrier, due to cost. Now it is a gate-way, an enabler rather than an inhibitor. That is very significant to us." Lazard says.

Abbey National operates systems ranging in size and supplier. Large mainframes from IBM and Unisys still provide the backbone for essential services such as savings current accounts and insurance packages, but the adveot of powerful workstations that do not require IT specialists to drive them has revolutionised the branch network. Abbey National bas recently completed a four-year programme to install rings of workstations linked into local networks in

each of its 685 branches.

These Olivetti machines are tied to a dedicated communications workstation at each site, which is networked on a national basis through lines leased from British Telecom. data-sharing through the communications host machine. In theory, any member of staff can work with any application on any workstation. The entire branch programme, including banking software, cost £95m. Over the last seven years Abbey National has invested a

Large though it seems, banks can no longer survive without persistent investment in IT. a condition Lazard defines as a growing dependency on information as a product. In theory, IT should allow banks to make better use of that information. One of Abbey National's computers is an AT&T Tera-

total of nearly £200m in IT.

potential for banks.

mined to slash payrolls.

timadia aquipment from AT&T's NCR arm in two branches, in Newcastle and

Watford. Paul Swainbrook's job as director of Teleservice at the TSB is to set up a telephone banking system. He has

problems. Thus, multimedia, the mixing of sound and video images with data on one screen, is seen as having large

Multimedia computer termi-nals represent the logical next step in the march of the antomatic teller machine. Condens-ing all the human functions of retail branch banking on to a machine has obvious attractions for institutions deter-

Some banks are seizing on multimedia to squeeze extra revenue out of existing floor-space. Turin-based San Paolo Bank is installing Olivetti multimedia terminals in its branches. San Paolo rents out space on these machines to third parties who use the interactive video display to sell services. The Trustee Savines Bank (TSB) has 1350 branches. and is experimenting with mul-

> This experiment justified a policy of applying IT in a restrained fashion.

Big potential for multimedia

"It's about not being supplydriven," says Swainbrook.

the impact of such technology

much more powerful than you might think." The TSB discov-

ered that without human inter-

vention, in the form of a Cus-

tomer Care Officer, its account

holders would not do business

with a box.

"customer shock proved

The rise of technology-driven financial centres has coincided with flarce commercial pressures and a relentle struccie to keep overbeads down. "You start out by asking what the customer wants, and then give him the choice whether or worked on the multimedia experiments and is blunt about

not to use the technology. Why persist with a solution if the customer doesn't want it?" The TSB is embarking on remote telephone banking

courtesy of IT. Cheaper and more powerful computers have enabled banks to set up parallel institutions such as Te vice within a practical timeframe. Teleservice pools the skills of computer and telephony integration specialist

Datapoint, telecoms provider Mercury and IT supplier Uni-

The project will cost tens of millions of pounds, but by a judicious marriage of telecoms and IT, TSB will acquire a new banking structure without the overheads of a physical branch network. Teleservice will follow in the steps of Midland Bank's First Direct operation. Technology is the enabler, but public interest is the motivator. Banks are finally taking a firm grip on the IT toolbox.



In the financial world, information technology was once seen as a barrier, due to cost. Now it is a gateway, an enabler rather than an

Inhibitor. Picture: Lydia van der Mee

#### Continued from previous page

sultancy Ovum. She believes that between 1996 and the end of 1998, revenues from pcs equipped for video will exceed those from conventional videoconferencing equipment.

Suppliers are also upbeat about the potential market. An increasing number have developed desktop video-conferencing products. They include Canada based Northern Telecom (with the Visit system distributed by UK computer dealers P&P), Intel, the US semiconductor company, AT&T; BT and IBM (with Coco); Apple (in the US); and Olivetti.

Many of these products allow people engaged in a video-conference to point to or edit information they can both see on their screens. Intel says that with its system, users at far flung sites can edit a report together, both looking at the same version on their screens, The system is modular and it

is possible for US users to buy

the ProShare shared editing software for \$99 without the full videoconferencing kit (which costs \$1,200 to \$2,500). Intel is spending \$100m (£67m) a year on what it calls personal conferencing technology. Its multimedia kits will go ou sale ments for videoconferencing products.

in Europe this year. To use one of its kits, the user must have a pc based on a powerful microprocessor (486DX or Pentium) and must install an ISDN (Integrated Services Digital Network) telephone line. Most other deaktop videoconferencing systems are also designed to work with ISDN, a high-speed digital

Simon Goodwin, of AT&T Global Information Solutions, expects the multimedia market to be worth \$900m by the end of 1995. He believes that growth will be fuelled by three factors: falling prices for multimedia components; the accep-

tance and roll-out of Euro-ISDN, replacing proprietary national ISDN communication; and the combined efforts of important European industrial participators in exploring new opportunities and require-

■ Point-of-sale promotions: Another potential growth area for multimedia is in point-ofsale (POS) devices. These can be used not only to promote products but also to collect information about customer preferences.

Many POS devices developed so far are linked into ISDN, so that they can relay customer orders back to head office or be updated with the latest product and price information.

Examples include: An interactive point-of-sales terminal which Ford plans to use in its car showrooms to enable customers to see the car of their choice in the colour and configuration they want for example, four doors, spoil-

 A system which helps a customer to choose a hairstyle from a database of 4,000 styles. Hairstyles can be superimposed on to a video image of the customer's face to see how he/she would look. (Although the system is used by only 18 Belgian hairdressers, Comsys of Belgium, its developers, is undeterred, and has crossed the channel in search of UK business.)

· A point-of sale terminal for a big music retailer. This system, developed by Applied Interactiva Marketing (AIM) of Piccadilly Circus, London, allows customers to sample albums which are to be released in the next few months (by selecting a track and a seeing a video clip of the

singer). Customers can operate

the terminal using touch-screen commands, and indicate which releases they are inter-

ested in buying.

AIM says that developing a multimedia POS system can take as little as three to four months or up to a year and a half. Costs of developing a system range from £15,000 to £200,000. Multimedia at the point of

sale has a lot to offer. However, 24 multimedia POS kiosks based in London's Heathrow airport illustrate the main problem with the tech-nology most people are unfa-miliar with multimedia terminals/kiosks and are hesitant to

try them out. Tha colourful Galleria 21 Heathrow kiosks, designed by the John Herbert Partnership (which was involved in the interior design of Terminal 4), use AT&T's multimedia technology. At first, people spotted

the klosks and wondered what they were for. Most people did not know - so they did not use them. Now the klosks have been clearly labelled "Tax free shopping" and AT&T says usage has increased. They allow travellers to use a touchsensitive screen to order goods via credit card.

The terminal works out how much the goods will cost, based on factors such as which currency is being used in payment, delivery charge, and whether any duty is payable, Tha goods thus ordered can be delivered to any destination in the world within seven work-

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Cue...

ing days.
The tale of the 24 kiosks shows that a multimedia screen has only limited powers of attraction. In order to reach wider audience, multimedia products must demonstrate clear benefits.

☐ Joia Shillingford is associate editor of the Financial Times

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number of new technologies make it possible for modern offices to cut back on paperwork - they include image processing (which converts paper documents into electronic images), workflow (which controls the flow of work between a group of workers), electronic mail and electronic data interchange.

☐ Image processing and work-

At General Accident's 1-2-1 division, which sells insurance directly to the public, a £1-5 million AT&T GIS image processing system has speeded up claims proceasing and increased productivity by 20 to 30 per cent.

Bob Thomson, personal lines operations manager for General Accident, says: "We're working in a very competitive environment and wanted to make significant savings. A lot of resources were going into filing and looking for paper, and we wanted all documents to be accessible from a single source."

Now the 1,000 to 1,500 items that arrive in the post every day are scanned into the image processing aystem and assembled into electronic files, which can be viewed on a computer. 1-2-1's 54 staff (who spend most of the time on the phone) thus have everything they need to work on a claim on screen, without having to get up and look for files.

Image processing and workflow software are also being used at the UK offices of US oil company, Amerada Hess. They have enabled the company to process higher volumes of invoices without increasing the number of accounts ataff. Amerada Hess' system, developed in conjunction with US image processing company Filenet, scans every paper invoice into a computer sys-

If the invoice is straightforward and the goods have been received and match the original purchase order, the bill is paid. If it needs to be verified by an engineer or a senior accountant, it is sent to their computer screens electronically via Digital Equipment's Teamlinks package.

Once approved the invoice is automatically sent to the general ledger department for a cheque to be issued. The system is faster and more efficient than the old system in which all accounting information was typed in to the computer from a paper invoice, and sometimes

■ THE ELECTRONIC OFFICE

#### The paperless office pays off for structured tasks

The paperless office is as far off as ever for what might be termed wide-ranging jobs. But for highly structured tasks, such as handling insurance claims or invoices, cutting down on paper can lead to substantial gains in productivity, writes Joia Shillingford

added to by an engineer or accountant, and it now takes only minutes to locate one of the 50,000 invoices Amerada receives each year, rather than a day or longer.

However, image processing and workflow are not the only route to reducing paper. David Ferris, a Britisb-born but Usbased electronic mail (e-mail) consultant says that use of e-mail can cut back on paper and give huge gains in produc-

He says that these gains will not necessarily come from interpersonal messaging of the "Are you free for lunch on Friday" variety, but rather from the use of 'mail-enabled' applications, where an application auch as word processing or electronic forms has an e-mail option built in. Mr Ferris says: "Automating simple business forms, such as expenses, can cut a company'a costs by between one and two per cent of revenues."

For example, time sheets created using JetForm aoftware and sent via Lotus Development's cc:Mail or Microsoft Mail, save California-based diskette-maker and CD-ROM duplicator, Trace \$270 a year per employee. The system costs \$44 a year per employee, giving a financial return of more than 400 per cent a year.

E-mail can also provide other, less measurable benefits, such as improved decision making, better communication acrosa time zones, more up-to-date market information, faster reactions to unexpected events, and shorter product-development times from geographically dispersed teams. E-mail can be used on all sorts of computer, but the fastest growing area of the market is e-mail for local-area networks

Another growth area is e-mail for executives who spend a lot of time out of the office. One of the latest prod-



City of London dealers: high-speed financial transactions are simost entirely completed on-screen and by phone

ucts designed for mobile e-mail users is Lotus' cc:Mail Remote for Windows. This allows executives to exchange messages with their in-house Lan e-mail system and keep in touch with what is going on back at base. Larry Crume, vice president of messaging at Lotus, predicts that it will be the company's biggest selling product this year and could hit sales of a million copies.

☐ Electronic data interchange: At present, many large companies use e-mail primarily for internal communications. By contrast, electronic data interchange (EDI) is used mainly for inter-company communications, where cutting out paper can significantly speed up the processing and transmission of information. (EDI or paperless trading is the name given to the exchange of structured husiness documents, such as orders and invoices, directly between computers.)

For example, a sales manage-

ment system underpinned by GE Information Service's public EDI network, helped to cut the time it took for US orders to arrive at Benetton's Italian clothing factories from threeto-ten days to just hours. Use of EDI is expanding. In

Britain, 8.400 companies have adopted it and new types of paperless EDI message are being developed all the time. For example, a UK EDI standard for utility bills has been developed and is waiting for European endorsement, and despatch and binding messages are being developed for users in printing and publishing.

But large scale users of EDI

have one hig problem - how to communicate with even very small suppliers or customers via EDI.

One solution is to use what

One solution is to use what is known as hybrid EDI where those who aren't equipped to receive EDI documents electronically receive them on paper. A number of options are available including BT's EDIto-fax service for its EDI\*Net
customers and the Royal Mail's
Edipost (EDI-to-post). Here,
EDI messages are sent to the
Royal Mail's electronic data
centre and then converted to
paper for delivery hy post.
Recipients can phone hack
their responses, which in turn
will be cooverted into EDI messages.

Barriers to the paperless

office

Hybrid EDI is a sensible compromise but it underlines just how difficult it is to get rid of paper when paper is accessible to every business from the corner shop to the multina-

tional.

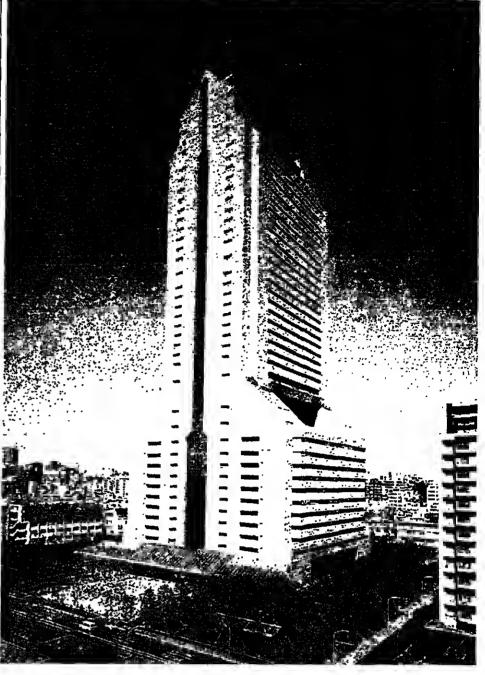
Another problem is that electronic images of paper documents are not legally admissible in court, even though they can include signatures, and are difficult to alter.

For example, Amerada Hess files copies of its paper involces, in case its auditors, consortia partners or the VAT office want to see them, and General Accident is keeping paper records of documents scanned into its imaging system on site for six months before decidiog what to do with them. Jeff Goldberg, an analyst at researchers Dataquest, says: "The promised paperless office has become the 'paperfull' office, partly because computers have not yet achieved the readability, or parter."

portability, of paper."

This is good news for printer companies - "more and more data is being atored on computers and people want to output it in a variety of ways," says Kevin Spinks, printer husiness manager at printer company, Lexmark. "This creates more and more paper and the demand for printers is growing at 15 to 20 per cent a year, I can't see the paperless office taking off this century."

Joia Shillingford is editor of the Financial Times newsletter, Business Computing Brief



NEC's Super Tower sets the pace

The Tokyo headquarters of NEC, the electronics company, has one of the world's most advanced

commercial communications systems, writes Michael Wittshire.

Built on the site where NEC first began operations in 1899, the 43-storey Super Tower, pictured above, features the NEC's Super Aladdin system for total office automation. This includes electronic mail, electronic statement and receipt systems for the collection and distribution of documents, an electronic bulletin board, closed circuit and satellite television services which links NEC's three north American subsidiaries - NEC America, NEC Electronics and NEC Technologies.

Other features used by the 6,000 staff of the Super Tower include electronic telephone notebooks which contain the 35,000 telephone numbers within the company. There are also automatic message services on telephone terminals.

Office facilities of the Super Tower also include electronic secretarial services for setting up schedules and monitoring business progress. Staff work to a flexitime system - "this seeks to encourage the self-esteem of company employees by giving them more control and responsibility over their working time," says NEC.

Customers may one day don headsets for a 'virtual reality' armchair walk around their favourite stores, writes Neil Buckley

#### A whole new shopping experience

magine, 20 years from now, a couple want to hold a dinner party but cannot decide what to cook.

They reach for a handset and call up some ideas from an electronic recipe book on the high definition video screen in their living room. Unsure whether one particular dish might be too difficult, they press a button for a video recording of a chef showing bow to prepare the meal atep-by-step

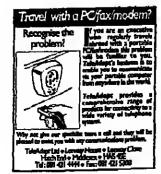
Satisfied they can manage, they move on to the wine. Further clicks on the remote control call up video recordings of winemakers wandering around their vineyards, talking about

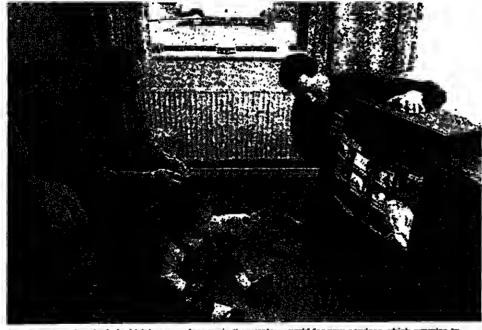
The choices made, the couple transmit an order via the handset to their favourite food retailer. A few hours later, the ingredients and wine will be delivered to a special hatch at their bome. They may even be delivered at the same time as the couple's regular, weekly shopping order.

sbopping order.

Such a vision remains a fantasy. But retailers believe it could be a reality, even a commonplace, by early in the next century. What will make it possible is the conjunction of multi-media technology, allowing sound, pictures, graphics and text to come together on one screen, with fihre-optic technology, enabling huge amounts of information to be sent at high speed to and from consumers' homes.

Technological advances in the past 20 years have revolutionised the way retailers run their businesses, producing huge gains in operating efficiency, but they have not fundamentally changed the shop-





Armchair shopping: technical trials are under way in the western world for new services which promise to create a revolution in 'home shopping.' These facilities bring together the telephone and television set to enable customers to choose and order entertainment and information services via an ordinary TV set.

ping experience. In the next 20 years, however, technology could revolutionise shopping

It will change the view of shops as simply repositories for goods to be sold to the public. It is also likely to break down the harriers between shopping, recreation, and even education.

The higgest growth area is expected to be TV shopping.

already booming in the US. The cable home shopping industry there - dominated by Home Shopping Network and QVC (Quality, Value, Convenience) - where customers watch a succession of products on screen and order by telephone, generated turnover of \$2.3bn last year. So-called "infomercials", advertisements used to sell products directly to the public, pulled in a further \$700m. On-line computer shopping services, in their infancy

generated \$200m.
Coopers & Lybrand, which
has just completed a year-long,
\$1.2m survey with sponsors
NCR, Telxon and Citicorp into
Retailing in the 21st century,
says that as the number of
available cable channels

but expected to mushroom,

increases, conventional sbopping channels are expected to proliferate, probably targeted at increasingly narrow age and interest groups. Eatablished retailers are

already seizing upon TV shopping as a potent selling force. Macy's, the US department store group, is launching a shopping channel later this year.

sophisticated communication networks are developed, could be the grouping together of information providers, network operators and transaction companies. That would enable customers to select purchases and transmit orders to retailers via a remote control, as described

An essential part of the growth of such channels is likely to be fast, secure delivery of products to consumers' homes, posing new challenges for retailers.

However shows as physical

for retailers.

However, shops as physical entities will not die out. Many consumers will always want the opportunity to examine or try on products before they

for top-up and impulse purchases are likely to remain indispensable - although they may become more specialised. But stores will bave to

But stores will bave to ensure they provide a "value-added" shopping experience and come up with new attractions to lure shoppers away from their TV screens.

Technological advances are expected soon to make shoppers.

expected soon to make shopping, especially grocery shopping, less onarous. One way will be to end queues at checkouts by developing shopping trolleys that scan purchases as customers make them and automatically deduct the cost from their credit or charge card.

Symbol Technologies and Videocard have already developed a trolley with a hlanket of laser beams across the top which can read harcodes of goods being put into the trolley, from any angle. The trolleys are being trialled in the Netherlands.

The next step may be using silicon chips or tags which can be read by a radio beam on the trolley. A prototype system has been developed by the South African Council for Scientific Continued on next page

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#### **Computer industry in transition**

he computer industry panies turned to automation to save costs and cut staff. But in the early 1990s it was different. Former giants of the industry - such as IBM and DEC - tottered alarmingly and have yet to prove they will survive the

The main cause is the transition from centralized, mainframe-based computing to distributed client-server-based computing.

In many ways the transition reflects e wider change which is taking place in industry generally; local autonomy from the dietribution of computer power aud management responsibility.

Technologically, this change manifests itself in client-server systems - an approach to dis-tributed computing which separates users (clients) and the services they use (servers).

Client-server computing has its origins in database management systems (DBMS) and the trend to separate the software used to access data from the software used to manage it.

During the 1990s, developers created a new model for DBMS which allowed these two comwork. The front-end tools data query languages and local applications - became known as 'clients' and the back-end DBMS 'engines' became known

Database vendors such as Oracle, Ingres, Sybase and Gupta use this approach in their products with the result that they can all communicate with each other.

A front-end tool from Gupta, for example, can use a back-end DBMS engine from Oracle without the user ever being aware of the location of the

Client-server computing extends this idea across the whole system and breaks down functions according to their role either as e client or a

n addition to DBMS servers, a modern network will have servers to handle printing. communications, mass storage

back up and so on. This approach can bring many benefits. It allows users greater freedom in their choice of hardware and software with consequent cost-savings. It makes systems more flexible and provides for better integration of different types of

"We have to tie the benefits

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The seismic trauma that has rocked the computer industry in the early 1990s is not just the result of a recession - it is the result of a fundamental shift in technology

to the business and I think client-server does this in four says Mr Lawrence Hunt, director of distributed processing at the UK software company ACT.

"Firstly, client-server is much more flexible than tradi-tional mainframe systems. If you want to get data for manment information systems, this is difficult with closed

"Secondly, it lets you integrate epplication more easily. You can integrate e PC-based spreadsheet into a mainframe databese much more easily

with a client-server epproach. "Tbirdly, client-server systems give much more independence from vendors. All business want to future-proof their investment in applications software, which probably represents 80 per cent of the cost of e system. Client-server enables you to do this effec-

"Finally, client-server systems can cut costs. We were recently installed a clientserver system et a large investabout £1.5m. It would have cost £3m if we'd had to use a traditional approach with main-

frames," says Mr Hunt. Other financial institutions have also opted for the clientserver epproach in a big way. The Nationwide Building Soci ety, for example, has standar-dised on Microsoft's Windows NT operating system as the lynchpin for a client-server system which will support 10,000 personal computer us over the next three years. It is also looking into the possibility of plugging its Automatic Tellsr Machine network into the new system with Windows NT as the controlling software. National Westminster Bank has also adopted Windows NT

Most organisations ere adopting a cautious approach to the transition from tradi-

as the basis for its client-server

tional centralized computer to Paymaster, formerly the Paymaster General's Office, is typi-cal ~ "we are introducing cli-

function. We have started with

electronic mail and access to shared spreadsheet and are moving on to introducing more function on desktop PCS," says Mr Derick Harbottle, director of information technology at

After many years of relying on an ICL mainframe computer to do everything, Paymaster has embarked on en ambitious plan to integrate up to 800 users into a three-layer clientserver system using hardware from Olivetti and software from Novell and Oracle.

The ICL mainframe will eventually become no more

"We have a heritage of legacy' systems on mainframes and we had to see if it was practical to move away from the mainframe. After a rigor-ous right-sizing study to see if It was feasible, we opted for e staged approach with a pilot project to start," says Mr Har-bottle. Paymaster's move to cli-

ent-server is the result of the same commercial pressure faced by husiness. Following changes in the UK government's approach to public services and the introduction of market testing, Paymaster has had to become aware of the service it offers it customers.

"We have made the change for sound business reasons. We are forward-looking company and need do more than sit back and let things just happen," says Mr Harbottle.

He goes on to emphasise that client-server should not ha seen as a technology solution but a business solution which brings greater flexibility to building information systems. He is also wary of expecting too much in the way of cost savings - "some people are talking about the technical issues or the cost-saving issnes. We prefer to concentrate on the husiness benefits which will come from client-



server." he explains. Any move to a new technology is bound to cause new roblems and the transition to client-server systems is no exception. Paymaster'e cau-tious approach — with carefully phased introduction of the new system alongside the old, is an

object lesson in how to move to client-server with the mini-

mum amount of pain. "We try to avoid being at the hleeding edge of technology. Rather than inventing our own, we would rather steel observes Mr Harbottle.

#### NETWORK CAPACITY

#### Users pin hopes on ATM

Demand for space on computer networks keeps exceeding supply, writes George Black

he present structures of local area networks of personal computers, Ethernet and Token Ring, running at 10 megablts and 16 megablts per second respectively, will soon be unable to cope with the growing volume of traffic.

As users compete for com-munications channels, the actual speed of delivery to each of them is often only a tenth of the network'e theoretical capacity. When more users come on to the network. Its performance degrades. Network managers have

responded to the rising demand by exploiting existing systems more efficiently. This is one of the main reasons for the enormous growth in sales of devices such as intelligent hubs, bridges and routers in have helped a lot, but it will

not be enough.

Fibre Distributed Data face, running at 100MBps, has been regarded by many as the probable solution, but it has so far proved too expensive. FDDI and Fast Ethernet, also running at 100MBps, may be over-taken by ATM (Asynchronous Transfer Mode).

Experts now agree that ATM is the only technology that can give the necessary transmis-sion speed for communicating image, voice and data together in real time at an acceptable price. It can use existing wiring, which will belp keep down the cost. It may therefore be what is needed to start the long- expected spread of multimedia applications

Ethernet and Token Ring have suffered from a lack of standards, which has meant a large amount of conversion of data from one format to another. The move to ATM, which is rapidly becoming standardised, may be equiva-lent to removing official fron-



The largest corporation will probably be the first to take up 'ATM-ready

Unlike Its predecessors, ATM cell relay, which takes advantage of the high speed transmission capacity of fibre optic cables. It handles data in fixed length cells rather than variable length packets, which is thought to be more efficient. This should push the speed of transmission up to a maximum of around 2.4 gigabits per sec-

For backbone systems in office and factory buildings, 155MBps is expected to be the usual speed; 45MBps may be typical for combined data, voice and video. ATM will not put upper or lower limits on the transmission speed but use that which is appropriate to

the application Other important advantages of ATM are that it is e much simpler system than the older ones and can be used for both local area and wide area networks, which should further reduce migration costs and ease the task of network man-

ATM was invented to serve phone companies, but was soon taken over by the pioneering computer companies of California's Silicon Valley.

he ATM Forum, which was set up by the com-puter companies in 1991 and now has over 200 members, comes out with a new standard every couple of months and is rapidly completing the set which is needed. It is setting a pace which the

telephone companies cannot match. Mr Tim Ward, strategic marketing director for Network Equipment Technologies (NET), a leading company in the forum, admits that there has been a lot of "hype" for ATM hut argues that it was

"It has turned people's atten-tion to ATM as e local area network technology," he says. "ATM-ready" LAN products began to come on to the mar-ket in 1992. ATM on LANs is forecast to prove a more

cost-effective solution than on WANs or on the public carriers' services. So It is likely to be adopted for LANs long hefore the telephone companies have worked out the

details of their offerings. The largest corporations will probably be the first to take up the technology, Banks want it in their dealing rooms, where video and news agency reports may be joined on a single fibre optic feed.

Users are only experimenting with it at the moment; live applications will follow in e year or two. Many of the telephone companies worldwide will introduce their first ATM

40

150

Œ.

Ed 1

1014

services this year.

According to Mr Sean Phelan, principal analyst for market research firm Yankee Group Europe, pricing presents them with a dilemma. "If they price it too low they risk canniballsing their current revenues, but if they price it too high the uptake will be very small," he says.

"The arrival of ATM therefore represents a hig opportunity for new entrants into the telecommunications business." tion is when they should try to move to ATM.

A report last year by the Ovum consultancy said that potential users of ATM, especially in Europe, were cynical about it, partly because current ATM products did not match their expectations. Ovum said that ATM provided far more than enough bandwidth but added that this did not translate into the function-

ality required. One of the authors of the report, Mr Iain Stevenson, savs that their cynicism may be dispelled by a number of new products from hub and router vendors which will be delivered this year. He notes the telephone companies are worried that ATM may leave them "holding the string" for users who have equipment on their premises which is intelligent enough for them to manage their own networks.

The telephone companies have to get closer to their customers to find ont what services they really want," he

says.
One of the technical concerns about ATM has been that receiving devices may not be able to cope with the through-put. Data cells could get lost in the pipeline and need to be re-

With only a small disrup-tion an encyclopedie could have gone by," notes Mr Jlm Boyle, vice-president of wide area networking for IBM. IBM has stated that ATM is one of its key technology strategies and it is investing heavily in research into network congestion. The design of ATM networks will be difficult, at least until flow control software

Users may therefore be wise to hire systems integrators to build these networks for them.

#### European contracts for Asynchronous Transfer Mode-based public switches **AT&T** TPL AT&T SS PTT Siemens AT&T धा

#### Electronic shoppers will be spoiled for choice

Continued from previous page and Industrial Research in con-

junction with the British Technology Group. Eventually, however, cus-

tomers may not need to put goods into trolleys themselves. Supermarkets - and other stores – may display just one example of each product. Customers will walk around the shon and wave a wand across a bar code on the shelf to order and pay for a product. Their order will be assembled behind the scenes by staff.

Surplus selling space might be used instead for cooking classes and demonstrations or multi-media kiosks offering

For those who do not insist on seeing or handling every item, the process could be taken further. Why walk around a aupermarket when you could be, say, enjoying a meal in a restaurant, making selections from an electronic shopping catalogue and picking up your order when you

have finished your coffee? As well as making shopping more enjoyable, advances in information and communications technology will give customers more choice and control. Stores may no longer stock products, but instead offer customers the opportunity, assisted by knowledge-

able staff or consultants, to nise or even design their own merchandise - for example to choose the colour, fabric and precise size they want items of clothing to be made in, with the order transmitted instantaneously to a factory and the finished product des-

patched the same day. in the US, the Blockbuster retail chain in a venture with IBM is allowing customers to select tracks for and record their own compact discs on the

Japan is experimenting with mobile production units in trucks or vans for goods such as spectacles and contact lenses, which take orders by telephone and deliver products rapidly to a customer's home or workplace.

Themed and 'experientlal' stores, such as those operated by Disney and Warner Brothers, are also expected to increase, using technology

such as virtual reality to se in the long run, customers may not stare at video screens at home, but instead - a prospect that still sounds like science fiction - don headsets tbat allow them to wandar

around virtual reality stores.

or even virtual chopping malls.

Copying

Developments in virtual reality systems: page 17

NOKIA

THE BIG TELECOM OPERATORS

#### A global scramble for partners

The emergence of global service providers able to meet the needs of multinational corporations is being slowed by a range of cultural and technical problems, writes Mark Newman

elecommunications glants are stumbling towards global alliances which will hring down national barriers and sideline second-division telephone companies.

The telecommunications big boys say alliances are a response to the communications needs of multinational corporations, but, at times, it seems as though the customers are the sideshow, and the main eveut is a showdown between telephone operators determined to outmanoeuvre each

BT carries much of the responsibility for the high levels of activity among the world's largest telephone operitors over the last three years. it tried to set up an exclusive partnership with Deutsche Telekom and Nippon Telephone and Telegraph in 1991. This fell apart after Deutsche Telekom insisted on including its French allies, NTT got cold feet, and both the Japanese and the Europeans realised that their competition authorities might not think a joint venture company intent on exercising global competitive strength was a good idea.

In fairness to BT, it saw a market emerging for the provision of global communications

Operator

NTT †

AT&T\*\*

BT†

**BellSouth** 

**Bell Atlantic** 

Nynex

TOTAL.

GTE

**DBP Telekom** 

France Telecom



In India, a bored attendant is pictured amid rows of phones during a strike on the Bombay Stock Exchange. Western telecom giants have sets their eyes on vast Asian markets, India has about 7m telephones, but just to provide one line for every ten of its 200m middle-ci ling an extra 13m lines. In China, there are plans to increase the number of lines five-fold to 100m lines by the year 2,000

services, and this has been the motivation behind its attempts to put together worldwide alliances, Many other companies. despite their claims, would be happy to keep the status out and to exclude BT from their

The world's ten largest telecommunications operators\*

51,353

39,580.

34,550

23,379

23,164

17,492

15,202

13,155

12,644

12,093

'Ranked by 1992 revenue; "AT&T does not offer local exchange line services; † Indicates year ending March 31, 1993. Sourca: Financial Times Telecom Markets Newsletter

Japan

UK

Italy

US

US

US

US

Germany

France

Events have moved on since multinational corporations; 1991: BT has taken a 20-per-France Telecom and Deutsche cent stake in MCI, the second Telekom have set up a joint largest US long-distance televenture company of their own: phone company, and the two three second-tier European companies are setting up a telephone operators, PTT Telenew company dedicated exclusively to selling services to com Netherlands, Telia of Sweden, and Switzerland's PTT Telecom have set up a venture

57

n/a

35

26

30

24

19

16

17

18

242

3.4

28

3,4

1.9

3.6

24

3.2

20

14.3

(0.7)

5.9

10.8

5.2

(0.9)

0.6

2,5

7.1

called Unisource; and American Telephone and Telegraph has also announced a world strategy of its own. Brokers in the global power 27 game will emerge from these four groupings, but the next few years will see a jockeying for position among the global communications protagonists 5.6 1,9 and the expansion of existing

> Other telecommunications companies waiting on the sidelines are US long-distance oper-ator, Sprint, Japanese operators, KDI and NTT, Cable & Wireless, Spain's Telefonica and Telecom Italia, the group that will emerge from the restructuring of Italy's telecommunications services sector, but they will face a number of obstacles along the way which will slow the progress of

global partnerships. The main ☐ US partners: most multinational corporations are bead-quartered in the US. The idea of a global communications company is that it can deliver services in all of those coun-

tries where multinational com-

panies have offices. A presence in the US, therefore, is vital. Two of the group-ings, Unisource and France Telecom/Deutsche Telekom need US partners. AT&T, MCI and Sprint are the three obvious candidates for anyone in search of a US partner.

MCI has already thrown in its lot with BT, so this only leaves AT&T and Sprint, France Telecom and Deutsche Telekom were in serious discussions with AT&T last year with a view to an alliance that would have involved a pooling of international telecommunications activities in a new company but Project Atlantic has broken down following suggestions from the competition authorities in Brussels that It would fall foul of rules on mergers. A less-ambitious alliance is now under discussion. but this may not satisfy the ambitions of AT&T.

Unisource appeared to be lining up Sprint two years ago when the two sides agreed to interconnect their data communications networks, but the agreement was terminated at the end of last year after Unisource lost one of its first customers, Swedish conglomerate, SKF Group, because of prob-lems with the interconnection of the two networks.

☐ Systems integration: telecommunications networks are constructed in different ways and by different manufactur-ers. When SKF Group cancelled its contract with Unisource, it cited the failure of Unisource and Sprint to provide seamless network integra-

Systems integration will be one of the main tasks facing BT and MCI when they construct a global network platform. Customers in the US will connect on to MCI's network, while BT is installing network facilities in Europe.

□ Old friends: partnerships already exist between international telephone operators. When a UK company orders an international private circuit from BT, for example, from London to Paris. BT bas to liaise with France Telecom for the half-circuit on the French side. Similarly, international telephone operators have to pay each other for delivering calls to their customers.

Accounts are settled according to the international settlements procedure, Complications arise when a country has more than one international operator. For example, the UK has BT and Mercury, while the US has three large interna-tional carriers, AT&T, MCI and

In this case, BT would divide its international outgoing traffic between the US operators according to the market share of the three operators for international calls from the US. AT&T has roughly 60 per

cent of all incoming calls. This husiness is highly lucrative as the settlements procedure sets prices at above cost. If AT&T was to side against large international operators, it could threaten existing relationships.

This explains why AT&T says it would prefer to offer global services in partnership with state-owned telephone companies rather than in com-

Regulation: few countries allow competition with stateowned telephone operators in basic voice telephone services. In Europe, restrictions will not be removed until 1998, although many companies are already exploiting uncertainties about the rules for compotition in services to closed user groups. Global alliances will also attract scrutiny from both national and regional governmental bodies.

BT's acquisition of a 20 per cent stake in MCI had to go before the the US State Department and Department of Justice, as well as the Federal Communications Commission the telecommunications regulatory authority. It also needed clearance from the European Commission.

An alliance between AT&T. France Telecom and Deutshce Telekom would face even closer scrutiny, and is the main reason for the decision of the three operators to seek a less-ambitious alliance than was originally envisaged.

utsourcing: global alliances are founded on the assumption that multinational corporations will, over the next few years. decide to outsource their telecommunications networks to third parties. But Mr Lenny Elefenbein, the managing director of US telecommunications consultancy, Lynx Technologies, notes that "while an cent of the US long-distance impressive number of users



Cable and Wireless earth satellite station in Hong Kong, More than 65 per cent of the population now have telephones

have put out requests for inforawarded their businesses to one of the carriers.

He says that even the large carriers have been confused by the high ratio of activity to closed deals and that several of them have commissioned internal studies to determine "why they they are not getting their share of the perceived hig outsourcing bonan.a.

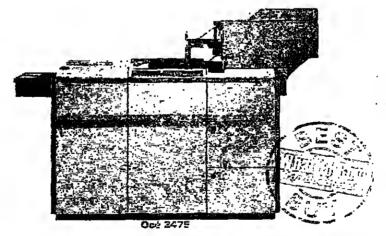
□ Cultures: while MCl is an aggressive, marketing driven company, BT is still making the transition from a government department nine years after its privatisation and ten years after the ending of its monopoly. Many observers question the ability of the two companies to work together

The problems will be even greater for other transatiantic partnerships. Other telephone companies in Europe are still under state-control and have not even begun to make the transition to commercially-run companies that BT started in the late 1980s.

There will be other problems along the way, many of them arising as global consortia threaten to take lucrative business contracts from stateowned telephone operators in smaller countries, leaving them only with the unprofitable residential customers.

A momentum has built up ehind the formation of global alliances which will assure their emergence, but there will be problems along the way. and big businesses - in whose interests the alliances are being formed - will have to wait a little longer before operators deliver the services that match their global service

The writer, Mark Newman, is editor of the FT newsletter, Telecom Markets



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#### A tricky balancing act for leading vendors

tainty in the international market for public telecommunications "which is characterised by lower investment and intensifying price competition particularly in the major industrialised countries' this was the gloomy prognosis for telecom equipment suppliers, given by the Swedish manufacturer Ericssoo, during its 1993 results meeting.

Five years ago this kind of outlook would have been deeply damaging for a company like Ericsson. In common with its rivals in Europe -Alcatel and Siemens - Ericsson placed a heavy reliance on the sale of switching equip-ment to state-owned telephone companies in western Europe.

But Ericsson's focus has changed over the last two to three years. Mobile communications is now its core husiness. And while Europe remains an important market for sales of switching equipment, Ericsson is increasingly tapping emerging markets such as India and China for

The telecom equipment market today is undergoing rapid change both in terms of the products that are manufactured and the markets where they are sold.

Big business users are demanding high-speed hroadband services to send massive volumes of data backwards and forwards between their offices scattered across the world. Radio is becoming the cheaper than copper for access to long-distance networks. And the term 'multimedia' is causing panic among equipment vendors. They will undoubtedly play a role in building multimedia networks.

But software is the key to multimedia and if equipment vendors fail to reach alliances with software companies, they may be left behind. The leading equipment suppliers such as Alcatel, Siemens, American Telephooe and Telegraph and Northern Telecom are still making public switches.

But most state-owned telephone companies in western Europe and North America are now reducing their investment their long-distance networks and modernisation of local networks for low-spending rest dential customers is proceeding at a slower rate. Recession - first in North America and now in Europe - has also taken its toll.

Increasingly, switch suppliers are targetting the emerging Asian markets.

China is the biggest prize and its requirements are so immense that there is room for all suppliers. Ian Macleod, a telecommunications analyst at Natwest Sellier in Paris, calculates that in 1992, total line deliveries (switch orders are expressed in terms of the number of lines that can be connected) to China came to around four million.

He estimates that the figure doubled to eight million in 1993, and that by 1996, orders could be running at 12m lines a year. To raise telephone penetration to its planned level of 10 per cent by the end of the decade, China will have to buy 100m lines between 1992 and

India's expansion programme will require the instal-

Leading equipment suppliers are well-placed to benefit from emerging Asian markets growth,

but they will have to get the balance right between selling old products into new markets, and bringing out new products for their older customers in the western world

lation of 18m lines over the same period. Major suppliers to Asia such as Alcatel and Ericsson are gradually moving manufacturing facilities into local markets. There are clear benefits to be had.

Production costs are lower than in Europe or North America. But this is not the prime motivating factor. In many cases, governments insist on



relay from smaller companies

in the computer and network-

ing sectors such as Cisco

Systems, Raycom Systems and

A bigger battle is being

fought for dominance in Asyn-

chrocous Transfer Mode

(ATM), a technique for sharing

the capacity of a telecoms

Stock market dealers in Hungary, Eastern Europe offers great scope for tele

local manufacture to provide jobs and prepare the way for indigenous production. Some governments in eastern Europe make the acquisition of local production facilities a pre-condition of contract awards. Oth-erwise, the local manufacturers which supplied the national telephone companies during the Cold War would

inevitably face closure. But it would be a mistake to imagine that western manufacturers are packing their bags and heading east. Sales into developing markets are more of an expansion than a re-ori-

The riches are still in Western Europe and North America, although the importance of public switching equipment is inevitably in decline. Alcatel, the world's largest telecom equipment manufacturer, still relies on Europe for 75 per cent of its sales.

Driven by a wave of liberalisation, the European telecommunications equipment market will undergo radical change over coming years. The cosy relationship between stateowned telephone companies and local manufacturers will be forced apart as new operators attack the lucrative international and business commn-

nications markets. Closed markets will open as state-owned telephone companies begin to behave like

proper commercially-rum companies. And national champions such as Slemens and Alcatel will respond by selling their products to competitors to Deutsche Telekom and France Telekom.

The UK telecommunications market is already the most liberalised in the world.

Equipment manufacturers are widening their vision beyond BT and Mercury Communications, and are facing immense pressure from both tha new operators and the incumhents to devalop new technology that gives them a competitive edge.

New international and long-distance telephone networks are being built, wireless technology is being trialled for local telephone networks, and cable television operators are baing allowed to offer telephone services.

The requirements of big business users are setting the agenda for equipment vendors. Coping with massive flows of data between sites has become a headache for today's telecommunications manager.

A surge in demand for the interconnection of local computer-based networks has led to the development of a fast packet-switching service for data communications called frame relay.

Equipment vendors are facing stiff competition in frame pean operators in 15 countries is to conduct an ATM trial this year, and all have awarded ATM contracts.

channel between those wishing

Familiar names such as Alcatel, Siemens, American Telephone and Telegraph and Ericsson have won contracts along with Natcomm, a UKbased data switch manufacturer.

vices, and can be applied to both private and public net-

works. All leading equipment

vendors are positioning them-

selves for a share of the ATM

market. A group of 16 Euro-

Ericsson has prospered as a leading telecommunications equipment manufacturer in a market which is undergoing rapid technological and where a number of its rivals are stumbling. Alcatel, Siemens fered profit setbacks in 1993.

They were hit by a fall in orders for public telecommunito use it. ATM enables tele-phone operators to offer high bandwidth services, such as cations equipment as a result of the recession in North high-speed data or video-con-America and Rurope, Meanferencing, with improved efficiency and greater flexibility.

ATM is already being touted while, products based on ATM, and Synchronous Digital Hieras the backbone for multimearchy, its sister transmission dia and other broadband sertechnology, are only now

emerging from the laboratory and operators are reluctant to commit themselves to major

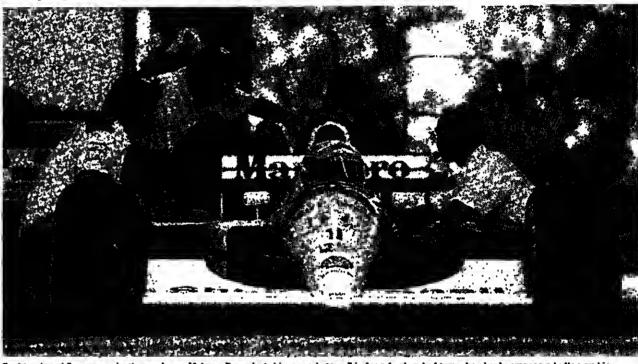
Lars Ramqvist, Ericsson's managing director, puts his company's strong financial performance in 1993 down to a strategy which meant spending 15 times more on R&D than on dividends.

In a speech at the 1994 innovation Lecture in London last month, Ramqvist said manufacturers needed to forego short-term profit in favour of

higher R&D spending.
Ian Macleod at Natwest Sellier is confident that the combination of liberalisation and new technologies "promises a new phase of growth in the world telecommunications

equipment market."
Leading equipment vendors are best-placed to benefit from the growth. But they will have to get the balance right hetween selling old products into new markets, and bringing out new products for their older customers in Europe and North America.

Mark Newman



Fast track mobile communications: when a Mcleren Formula 1 driver needs to call in for a fresh set of tyres, he simple present a button on his steering wheel. This show him to talk to ground crews and pit mechanics over a sophisticated radio system, installed by the Kenwood Corporation for the Melboro Molaren team. 'Hends-free' operation is ensured by a ministure microphone and speaker in the driver's belimet.

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Mobile Communications, the

Developments in Europe's local

today - are predominantly analogue systems such as AMPS (American Mobile Phone System), TACS (Total Access Communication System) and NMT (Nordic Mobile Telephone) systems. Radiopaging has been domi-nated by the POCSAG (Post Office Code Standards Advi-Please return this form to: sory Group) system. Second generation mobile technologies FT Newsletters Enquiries are now becoming commer-Financial Times Newsletters cially available, introducing GSM users by the year 2002 in digital architectures to mobile 3rd Floor, No. 1 Southwark Bridge, Surope alone. Driven by falling handset prices, competitive tar-

> The speed of developments in the mobile industry accelerates apace. For example, it

turers eight hours to make a cellular phone in 1988; 30 min-utes in 1992. Today it takes a mere 12 minutes - and this is a telephone containing computer capacity of between 30m and 40m instructions per second, equivalent to the powar of

Mind the gap!" warns a familiar, faceless voice to travellers on the London Underground. This could well be the watchword for the future of global mobile communications as a radical revolution takes place. The "gap" in this case is "globalisation and personalisation" - the main themes of the

wireless age. Few of us could have predicted the all-pervasive influence which personal computers would come to have in business and personal life over the last decade. Yet we are seeing the integration of voice, data, image, and communications in a natural evolution towards the multimedia workstation.

Paul Quigley charts

the rapid progress

towards a mobile

communications

millenium in

Similarly, emerging technologies in mobile communications have catapulted wireless, mobile and personal communications into one of the fastest growing markets in the world. The range of technologies bacoming available is immense. Many people know about and use cellular telephones and radiopagers. Others are aware of mobile data and digital cordless technologies. Plans are well under way for future wireless and mobile communications systems which will obfuscate the demarcation lines between wireless and fixed telecommu-

First geoeration cellular technologies - those in use

communications. These include GSM, CT2, DECT. CDMA and the lesser-known IS-54 and PDC.

took cellular phone manufac-

mainframes of only a few years GSM (Global System for Mobile Communications) is in the limelight around the world. Developed by the European Institute (ETSI), the technical standards body, GSM is the first barmonised European standard to catch the imagination and the investment of

users, operators, and manufac-

turers alike.

communications and fax, is making GSM a serious contender as the benchmark for future global mobile systems.

DCS1800, a digital cellular standard based on the GSM specification for lower power bandsets, points to the future

in the wireless market. Operating in the 1.8 GHz band width, DCS1800 is intended for use as a mass market personal communications network, or PCN. With a design philosophy quite distinct from its forbears, the key to the PCN market will be simplicity and ease of use. The target market for the "per-

sonal communicator" is you

and me. In the UK there are two



Calinet Lifetime, the mobil e phone service package from Celinet, aims to

licensed PCN operators. Ger-GSM was developed as a pan-European digital cellular radio many has licansed one network architecture; it has DCS1800 operator; so has Thaievoived over more than 10 land. France is in the process of licensing a DCS1800 operator and others are sure to follow. ears into the standard we see today. Set to grow at an unprecedented rate over the There is growing speculation that US telecom regulators will grant Personal Communicanext five years, GSM is already far more than merely a European standard. Already it has tions Services (PCS) licences to operators touting DCS at 1900 MHz. been adopted as the preferred choice of international mobile network operators in countries Cordless technologies such Zealand, Russia. South Africa. Hong Kong, China, India, Pakistan, and the Gulf states. A report entitled "GSM -Going Global", by consultancy Nexus Market Analysis, forecasts that there will be 40m

iffs and wider network cover-

age, the market is growing at a

tional roaming capability of

GSM, coupled with the phase

ubenomenal rate. The interna-

as CT2 (second generation digi-tal cordless telephony) and DECT (Digital European Cordless Telecoms) are also reviving the industry. CT2 has recently experienced mixed fortunes around the world. The failure of CT2 as a public telepoint technology in the UK made many people think it was a dead-duck digital technology. However, mass uptake of CT2 in Hong Kong, France and elsewhere has forced a re-evaluation of its future. (The advent of the DECT standard may have somewhat dampened this,

enhancements such as data as DECT has found converts in the cordless PABX arena, the wireless local area network (WLAN) market and even in the wireless local loop market.)

In radiopaging, developments in memory capacity, functionality and coverage are vying to re-establish this elder man of mobile communications as a flexible and feature-rich medium.

Wireless Messaging is the term used by many people in the industry for radiopaging. ERMES (European Radio Mess aging), the ETSI standard for digital paging, is taking longer than expected to launch. Third generation systems are already on the drawing board, with concepts such as "Future Public Land Mobile Telecommuni cations System" (FPLMTS), "Universal Mobile Telec nications System" (UMTS) and "Universal Personal Telecommunicatione" (UPT) already well under development.

The backbone of these third generation systems will be Intelligent Networks (Ins) which will enable users to rely on the intelligence in the digi-tal network to handle the mechanics and logistics of routeing, storing and forwarding

Competition in Europe and across the world has driven the market - competition not only in bandsets and equipment manufacture, but especially between network operators. At a recent IBC conference on Pan-European Digital Cellular Radio in Athens, GSM was seen as the de facto global

standard. Yet, despite GSM's runaway international success, there is a continuing debate within the industry over the future air interface of digital cellular systems. GSM, DCS1800, DECT, and others use TDMA (Time Division Multiple Access). which breaks up speech channels into multiple time slots. Over the last few years the industry has been rocked by an alternative digital air interface: CDMA (Code Division Multiple Access), a spread-spectrum technology making better use of available frequencies.

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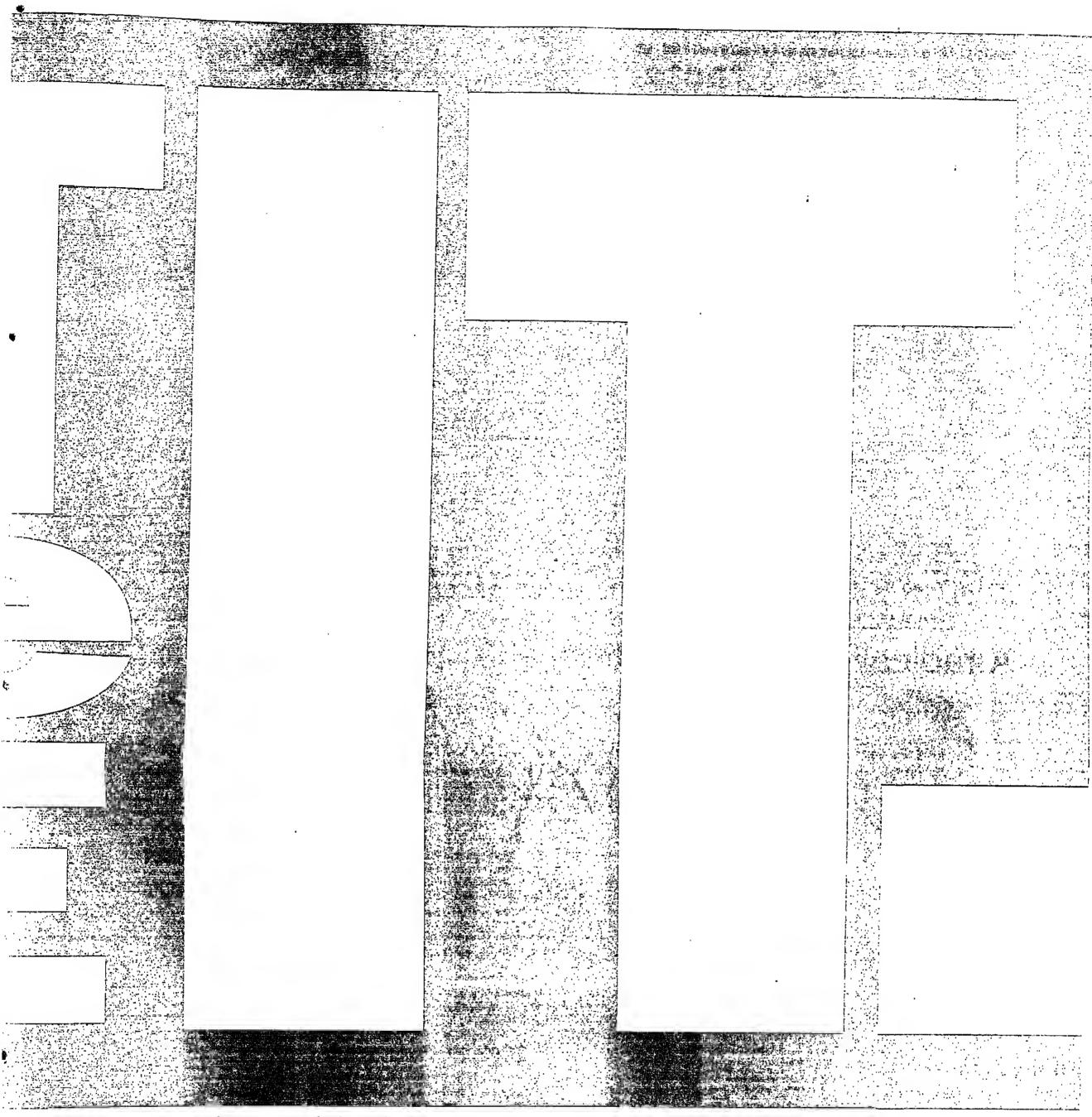
"Success is never final."

Winston Churchill

"Carpe Diem."

"Things may come to those who wait, but only the things left by those who hustle."





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#### A make-or-break factor

be ability of a company to operate - or not may depend on the management of its computer system. This can be the make-orbreak' factor, especially as computers move close to the centre of husiness in areas such as manufacturing, customer service and sales, as well as the traditional accounting functions.

On this premise both factions oo facilities management (FM) base their arguments. The factioo "against" believe the computer system is so vital to the competitive strength of core activities that it would be madness to contract it out. Inside knowledge - expertise about computing, and the business - should stay that way.

The argument about being in the centre of things bands equal ammunition to those who promote FM. In a culture where compulsory competitive tendering (CCT) is the norm. there are economies of scale in an outside (or "outsourced") supplier providing the hardware, the software, and the expertise to support it.

CCT demands that every contract decisioo must involve those classic elements, "mea sure and deliver" - dear to the beart of IT professionals. You can't deliver what you can't measure. Furthermore, FM proponents argue that they are much better at knowing bow much things should cost, where economies can be made, and delivering them, undistracted by the fluctuating con-

cerns of core operations. Coding, programming and the support of end users are the central activities of an IT department. The argument runs thus: how much better for In the term "computer services," emphasis is shifting away from computers and towards services. That is one reason why companies once dedicated to hardware or

software are moving into facilities



in-house IT staff are faced with increa

services.

individuals to be at the profit making centre of a company whose business is supplying IT services, than to be at the periphery of a company whose real mison d'etre is haking hiscuits, making cars, or explor-

It has to be said, on both sides, that the margins in sup-plying computer hardware and even packaged software have dwindled. However, the longaccepted figure of "80 per cent of IT spending is on support and maintenance" stays constant. The tedium of arguing about who owns a problem (software, hardware, network?) has driven many a user-company into single-source-supplier agreemeots, and the idea of contracting out an entire IT department is simply a logical

thing to do with development including every sort of alliance of software and hardware involved in setting up new systems. FM is the contracting out of an entire task and its maintenance - the contractors take over the assets and the manpower necessary to the The research company Dataquest estimates the value of the FM marketplace at more than \$2,500m in Europe, grow-

step further in cost control The result is a burgeoning market in "systems integra-

tional firms of accountants such as Andersen Consulting and Ernst and Young, and names once identified with manufacturing, rather than merely supporting computers. Unisys and Olivetti, for example, are among the companies which, once known for their proprietary hardware, have turned to supplying services sort of hardware and software particularly the workstations and PCs termed "desktop ser-

Nearly 1,000 of Olivetti UK's 1.400 employees are in the Customer Support Group, working for a customer base largely in the financial and retail sector. Unisys has recently signed up Bass Taverns, the UK's largest public house retailer, for an FM contract worth over £3.9m over three years. Its joh is to support 2,500 pubs, developing and supporting Bass's Central

in the UK, other usars of Unisys' outsourcing services include McDonald's Restanrants. US users include the federal govarnment, the Ford Motor Company, and Nasa.

Hoskyns is an active FM company, one of the UK's largest computer services companies, worth £200m, part of the French-owned Cap Gemeni Sogeti Group. UK customers include Woolworths, Bristol Water, and Hoover - "outsourcing is still the fastest-growing sector of the IT services market. Analysts estimate that the European market will double by 1998 to a value of £4hn," says Peter Falconer, Hoskyns'

associate director. Falconer is looking to the European market to expand, Five recent contracts for Hos-



Ready for action in an emergency: pictured here at London Docklands are the advanced financial trading positions in the Telehouse purpose-bu ding dealing room disaster recovery services. The £30m centre – an Anglo-le financial district, is a 24-hour operation with satellite communication services data centre, ready for comp

kyns' Scandinavian sister company, adding up to £17m worth in all, underline the ambition. The pace at which FM is adopted will differ country by country," he says. "CGS is well placed to henefit from this expansion, because it is committed to regional as well as global service delivery."

He argues that in-house IT departments find It difficult to keep pace with the growing demands of the organisations they serve, and the increasing complexity of PCs and LANs is putting more strain on them.

ccording to a 1993 survey by Romtec, desktop services (PCs, their procurement, installation, configuration and support) is the fastest-growing part of FM - worth over £1bn by 1995. Asset management, network design, installation and administration, and the end-user helpdesk, all come under the "desk-

top" label. The desktop is one of the prime areas targeted by Bull Information Systems, the newest arrival in the FM market, which launched its Athesa FM division this February (see below). Sharing the benefits of cost-

saving is a convincing argument for FM, but there is always concern about staff who have to change allegiance to the "outsourced" supplier. (See panel on Andersen's BP contract for an exampla). There are regulations to protect them: the Transfer of Undertakings Protection of Employment Regulations 1981 retains current terms and conditions for staff being trans-

ferred. The government is anxious to remove obstacles to free market testing. According to the William Waldegrave, the minister for public service and science, speaking at a recent Financial Times conference on resource management, "The relevant provisions of the Deregulation and Contracting-Out Bill, now before Parliament, are designed to extend the scope for market testing activities in central and local government by removing obstacles to the contracting-out of statutory functions." This is good news for Athesa and others but staff affected might not be so pleased.

Unison, the UK's biggest trade union, and CMS, a divi-sion of British Steel, claimed to have broken new ground when they recently signed a trade union agreement which outlined practices and procedures to be followed when staff transferred from Cambridge City Council to CMS, a division of British Steel, which won the multi-million pound contract in late 1993. According to Mark Pope, CMS sales and marketing manager, this was an impor-

"We believe it is important that our new staff bave confidence in us, and we in them." The Unison office at Cambridge City Council stressed the importance of contractors recognising unions. "If we are to be subject to the contracting out of services from local authorities, then it is important that any successful contractor recognises unions: CMS was the only candidate that had any track record of suc-cessful relationships with

This is a hint that the change of culture associated with working for one organisation rather than another might bring new patterns to the computer industry. "Partnership" the key word emphasised by all FM suppliers - means both partners making allowances if

the marriage is to last, take in Bull and Andersen sto-

Case study: two companies break new ground

ing by 20 per ceot a year. This

explains why some of the best-

known names in the computer

industry are now turning to

They include the big, tradi-

FM as a core activity.

tion" and "facilities manage

ment" - new names for bun-

dling activities, familiar since

the earliest days of computer

Systems integration ts a broad church. It covers any-

#### A radical change in culture

acilities management agreement between BF Exploratioo Europe (BPXEU) in Aberdeen, and Andersen Consulting, broke new ground for both companies. In effect, BPXEU out-sourced not only tha IT department and the accounting software it bad used, but the actual accounting function and staff as well.

The decision, taken in the early 1990s, affected the entire accounting services of the UK and the Continental Shelf operations - a £12bn business worldwide, employing some 7,000 people. Another unusual aspect was the extreme secrecy of the arrangements: the 300 accounting staff affected were not told until after months of negotiations and hammering out details of the facilities

management (FM) contract. The driving force for BP Exploration towards facilities management was the need to cut down all expenses by 30 per cent. Tom Wright, control and planning manager at BPXEU, explains the pressures brought about by the collapse of oil prices since the early 1980s - "we realised we would have to radically alter

Bill Lattimer: "We have taken a

process and completely redefined

the way the service operates."

the way we did business to remain competitive. We had to reduce costs 30 per cent across the board," he says. "It was a requirement for every manager to achieve that within three years without compromising

health and safety."
The core skill for BPXEU was its business of oil exploratioo, and a hard look at the accounting services revealed that a line could be drawn

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the help of competition prizes.

design competition, is just launched - for its fourth year.

information was truly necessary in-bouse, and what was

"It is vital that we have that information, for making policy and interpreting husiness information, but not that we provide it ourselves," says Mr

"Similar styles" is the reason he gives for the choice of Andersen Consulting, which already had a track record at BPXEU. When news of the announcement broke in June, it was a brand new idea for both companies. Andersen was to take over accounting staff as well as IT staff and computer

"Initially there was shock, even anger, However we had prepared pre-planned, individual, intensive counselling sessions, and by the end of the day, people understood the effect it was going to have. We though that was better than mooths of uncertainty," says Wright.

The business was transferred under transfer of undertaking legislation, which protects the employees and their rights. Effectively they had no choice. although for some, the centralisation of operations in Aberdeen, from the six sites previously involved, pre-determined the decision.

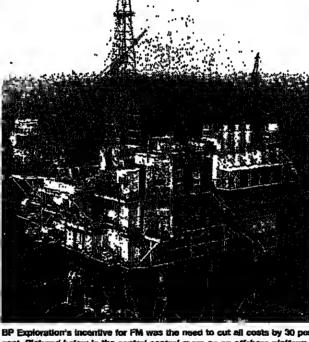
"Everyone outside Aberdeen had a choice of relocation to new location or accepting severance terms." says Tom Wright. "They were transferred - full stop. There was no

Andersen took over the staff, the Vax computer and McCor-mack and Dodge (now Dun & Bradstreet) Millennium software used for the accounts. Wright himself has no doubts that the deal arranged for BPXEU accounting staff actually secured better career prospects and long-term employ-

"Andersen Consulting pro-vides greater focus and incentive for the staff who feel far closer to the business. If an accountant works for an accountancy company, it is the focus of using the core skills in the core business that drives the difference. No one believes that on 'day one,' of course, but after six or seven months that is exactly what has hap-

The pension rights were the only thing that had to be addressed - in some cases topped up" to metch the BP scheme for those transferring to the Andersen pension

"The key benefits are the enthusiasm and the focus of the staff. It has reduced costs by creating a single interface, instead of a myriad of interfaces," says Mr Wright, "The real effect is that we have turned a fixed cost to a variable, or at least semi-variable cost. As the service expands say, drilling increases or new fields come online, or we dispose of other assets - so the



BP Exploration's incentive for FM was the need to cut all costs by 30 per cent. Pictured below is the central control more on an offshore platform



centrate on the core business BP that we are serious about and it allows us to focus on the production. It has simplified things. We don't have to worry about training, developing and motivating 300 accounting and

support staff." However, there has been no abdication of decision-making. 'We take all the husiness decisions. They provide the financial analysis and variants analysis, hut they don't decide what should be done: the decision-making is the core skill." says Mr Wright. He believes the physical distance of the Andersen operation, five miles away, was essential to bring about n change of culture. The initial contract is for

four years: both parties reckon on three years to get the costs down, although a longer partnership is envisaged. "It's an opportunity to share

benefits: if Andersen can grow the husiness, they can bring the cost down. They have the focus to do It faster and more efficiently. The other thing I'd emphasise is that we really did want the best for our staff. We honestly believed they would have a better future than in a business where the cost pressures of the North Sea were a constant threat." he adds. The FM contract has had one more important psychological effect, ha says. "More than

anything else, the move con-

vinced everybody else inside

changing the way we do busi-For Andersen, the business

has grown as expected. It took 317 staff from BPXEU, only 30 of them computer-hased That's what makes this deal so unusual: it's a business function management, not just systems management," says Norman Cook, Andersen's sociate partner, the head of

the unit at Aberdeen. It now has extra customers including Sun Oil in Aberdeen. Cook's view is that Andersen's expertise has already brough savings. He is confident that the current costs of £15m per year can be brought down by £5m by 1995 - "we've saved a lot because we manage the bank balance tightly: £500,000 a year in funding charges alone."

Bill Lattimer, partner in charge of market development for the outsourcing practice at Andersen Consulting, believes this is the way FM is going -"the IT component is of less interest to the customer: it's not the important element in Aberdeen. The way we have developed the people is important. Wa have taken an organisation, a process, and completely redefined the way the service operates and the way it interacts with its customers. The value-added service we're providing is our skills in service definition and manage-

Facilities management: the supplier's viewpoint

#### **Customer-driven approach**

tant "industry first".

tarting a facilities man agement company might seem a radical departure for Bull Information Systems, hut when Athesa, its new facil-ities management (FM) division, was launched in February, Philip Crawford, the chief executive, insisted that the new company was no depar-ture but a logical evolution from the role that Bull has long held with its customers, writes Claire Gooding.

Mr Crawford sees FM as an international opportunity -"the use of partners to offar a full range of services in the outsourcing arena will be a growing trend. We can draw on facilities in 28 countries," he

says.
The company is experienced in changing its role as the computer industry has evolved. Its primary markets - healthcare, police and local government are among those most drastically affected by the demands of cost- cutting and compul-

sory competitive tendering.
According to Athesa director, Brian Gunn, the move is customer-driven - "we are focusing to deliver a range of services, from under one roof. In the last 12 months customers, especially in local government, have been asking ns what we are doing in FM."

Bull has used partnerships of various sorts as the platform for its own sundry changes of direction. As part of its adjustment to Open Systems, it has developed stroog links with software vendors and value-added resellers. In the past Bull has done well as the prime bidder in single-source contracts, with clients who are comfortable with the 'one bot-tom to kick' principle.

The key to success, he believes, is flexibility in the use of staff. There is a core of 60 Athesa staff in the division, but he intends to treat the rest of Bull as on call. At one client, Glaxo, Athesa is providing a desktop service where it is installing, maintaining and supporting PCs, LANs, and Unix servers, not only in the UK, but in 26 countries worldwide. The contract has been worth £2.4m since it began in 1992, and is expected to be renewed at the end of its current period in 1994.

"We can bring our skills to the fore in forging new partnerships. There is a range of skills and complementary

Leading facilities management suppliers\* EDS-Scicon Sema Group ATAT Istel Data Science Consulting

The key to success in facilities management is flexibility in the use of

staff, says Brian Gunn, director of Athesa UK - "we can bring our skills to the fore in foreign new pertnerships," he adds

haps those skills are not unique in themselves, but what is unusual is that we can pull it all together," says

Development and systems integration are complementary to Atbesa's plans. Bull's Systems Integration section will provide the experts who are needed on projects needed, for any period from a week to two or three years. Athesa will provide the long-term support for operations and applications support, and management of IT. Bull's plans are standard in this area, involving the take-over of staff and assets. "We have the resources on tap, they get the career opportunities," says Mr Gunn.

Athesa's sister company, tha People Plus head-hunters, are part of the partnership. In one sense. Gumn argues, the source of supply is the cornerstone of

expertise we can draw on. Per- the business. There has always been a division in programming hetween those who develop and those who main-

tain software. While this distinction has been largely broken down by the increased use of software packages, and the availability of fourth generation languages, there will be times when the aristocrats of development will he needed on a short-term

In concentrating on the desktop delivery, Bull is not alone. Desktop and the network have become more important, Supporting legacy systems is bread and hutter, but the market is heading towards improving, not merely maintaining operations.

"It is in the area of business operations that the opportunities of cost-benefits are to be achieved", comments Mr

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1969 ICL had a £115m turnover

and spent £13m on research

a research budget of almost

However, a retired ICL exec-

utive director, Mr Peter Hall,

stoutly defended ICL's record.

ICL and its ICT forerunner had

been profitable for 35 years -

apart from in 1965, just after

taking over Ferranti's ailing

computing operation: and in

1981, when the visionary Dr

Robb Wilmot was transforming

the company for the emerging

Mr Hall said Fujitsu allowed

ICL to run itself and that the

company generated all its own

cash for takeovers and other

investment, and did all its own

Whether that makes ICL any

more British than IBM UK (or

Rover Group in the car indus-try, for that matter) is debat-

able. But Mr Hall argued that

these points suggest that the

early promise of the UK com-

design work.

office computing revolution.

£170m.

THE UK'S COMPUTING INDUSTRY

#### History often repeats itself

ujitsu's takeover of ICL in 1990 brought an end to a UK-owned computer manufacturing industry which dated back almost 40 years.

Yet according to some of its early leaders, who met at London's Science Museum at the end of last month to discuss why the early UK promise was not fulfilled, the fact that the industry bad survived even beyond the 1960s was quite remarkable

The packed meeting, organised by the Computer Conservation Society, highlighted the UK's disadvantages from the very early days.

The UK's contribution was out of all proportion to its pop-ulation and industrial capacity," said Mr George Davis, who worked at the National Physical Laboratory on the ACE (Automatic Computing

Engine).
"This was true at all stages: the creation of basic concepts, the research and development leading to the first computers and the emergence of a computer industry with competing

But Mr Davis argued that the breadth of this contribution meant that the UK industry was too diverse from the

By the mid-1950s there were eight computer manufacturers. They included Ferranti, English Electric, ICT (International Computers and Tabulators), Elliott Brothers and Leo Computers - this last was the product of J. Lyons' extraordinary expansion from tea shops into building computers.

yons is credited with being the first organisation to run commercial applications. Notable among these were bakery production monitoring in 1951 and payroll in 1954. These landmarks inspired The Economist to publish a feature article in 1954 which asked: "Is this the first sten in an accounting revolution or merely an interesting and expensive experiment?"

The trouble was that the US, with a similar number of manufacturers, had a far bigger home market on which to build the foundations for its industry and more government sup-

l addrog

"While the US government was supporting research and development in the late 1940s and early 1950s, with guaranteed orders at the end, the The development of the UK's computer manufacturing industry ran into problems from the start. Genius was let down by poor marketing and lack of government funding, writes John Kavanagh

seen as significant in the UK and was not supported," George Davis told the Com-

puter Conservation Society. This was underlined by the practical experiences of Mr Cecil Marks, who recalled being seconded by Royal Ordnance, where he worked on administration and accounting, using punched card equipment, to a study carried out hy government departments into the potential uses of computers. Scientists and users from several departments, including the Treasury, worked for 18 months, culminating in the production of a hefty report and a meeting with "a very senior civil servant."

'At the end of the meeting suggested that this was not the time to he getting into computers," Mr Marks said. "That led to the ordnance factories, at least, losing ground for more than 10 years.

Other factors were brought to light by Mr Hugh Ross, who set up Ferranti's London computer centre in the mid-1950s. He pointed to a diapute hetween Ferranti and the National Research Development Corporation, over manufacturing costs underwritten by the publicly-funded corporation, which led to a nine-month ban on sales. As Mr Ross said, this had a "crippling" impact on UK success in the emerging market, as well as hitting Ferranti's cash flow.

But Mr Ross also blamed an absence of financial management for Ferranti's failure to fulfil its early promise. Even when he set up the London computer centre, he said, he never had to account for any money he spent - indeed, he had never had a budget in the first place.

Later, when he was responsihle for Ferranti's pioneering documentation service, one of the biggest spending units, Mr Ross again had no budget. Moreover, he had never had to produce a husiness plan and was never called to account. "There was no financial mangement at all." he said.

"I later joined STC and came in contact with management training provided by its owner, the US ITT group," Mr Ross added. "This was terrific - and

computer industry was not a profound shock, after Fer- puting activities of all the ranti. We had to produce business plans, prepare budgets and report our monthly results gainst those budgets."

Such personal reminiscences add flesh to historians' reports on UK genius being let down by everything from poor marketing to lack of government funding, compared with the US, France and Germany.

hatever the combination of factors, George Davis showed how US manufacturers took firm control within a dozen years of J. Lyons running that first payroll system

By 1967, IBM had installed over 21,500 computers of various sizes; UK market leader ICT (soon to become ICL) had sold 844. These included 399 of the new 1900 range (which was to he the company's mainstay until the middle of the 1970s); neanwhile, IBM's System 360, launched the same year, was already up to 5.730 installa-

In 1968, ICL was formed as the great white hope: the cul-mination of merging the com-

which had mostly merged into ICL by 1969, was fulfilled after all. It is simply that a generation later the industry is all in foreign hands.

early manufacturers. Yet it As today's tight margins on was still dwarfed by IBM: hardware increasingly cause George Davis showed that in computer manufacturers to look to software and services for their profits, it is equally and development, while IBM debatable whether the virtual had a turnover of £3,000m and disappearance of a UK computer manufacturing industry need be a cause for concern.

That concern is now focused more on the software industry, where some big names have fallen into foreign ownership. Takeovers of Cap. Hoskyns, Istel. Scicon and others have given substantial footbolds in the UK market to, for example, the telecoms giant AT&T, General Motors' EDS subsidiary and the French company CGS Europe'a biggeat computing services group. History, as they say, has a habit of repeating itself.

☐ The Computer Conservation Society has regular meetings and works on restoring ancient computers. It is also opening Bletchley Park (which cracked

Germon codes in the Second

World Wor) for public visits.

The secretary is Tony Sale,



of various sizes; UK market leader ICT (soon to become ICL) had sold 844. These included 399 of the new 1900 range (which was to be the company's mainstay until the middle of the 1970s); meanwhite, IBM's System 360. ched the same year, was already up to 5,730 installations.

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and the second s cus-tom-ar-less v.t. 1. To make a company more responsive to its existomers and better able to attract-new ones. 2. To customerize an organization's information strategy, e.g., to extend systems capabilities to branches, booking offices and other points of entomer contact and support. 3. What Unity's does for a growing number of companies and government agencies worldwide. See Customes SERVICE COMPATITIVE EDGE MUSINESS-CRITICAL SOLUTIONS, REVENUE GENERATION

higher level, so will your ability to make new customers, build your relationships with them, and generate revenue.

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2. Are your customers as loyal as you want?

It's one thing to gain customers. It's another to keep them. The strength of your business depends largedy upon your ability to sustain a relationship with customers.

3. Do you generate as much business from each

A critical component of business growth is thereased sales content. To maximize each business opportunity, you need a way to leverage your entire organisation—to bring it totally to bear at the point of

4. Do you <u>real</u>ly know what your customers want?

☐ Yes ☐ No

Are you alert to every product your customers could use? Every service that might interest them? Every transaction they're prepared to make? Every safe they'd allow you to follow through? Are you

5. Does your entire organisation know what your

A customer orientation has limited value unless it's embedded to the very heart of an enterprise - at all levels, and at every place that directly or indirectly

trying to tell you? ☐ Yes ☐ No

9. Are the [pl] capabilities of your organisation accessible to your customers at all your field

An office. A branch, A retail site. To a customer that's your company. One small part of the whole. Which is why you need to leverage your entire organi-sation by extending its capabilities to each point of

7. Can your organisation respond quickly to what customers and markets are telling you?

When the flow lines of your infortuation system are not within your customers' reach, you won't always sense when opportunity knocks. But even it

products and services, revenue opportunities are lost

☐ Yes ☐ No.

Many business plans underestimate the power of information to build customer relationships

But imagine the advantage of an information tech-nology strategy that transforms information into

ner-generating, revenue-generating fuel

Otes ONe

8. Does your information strategy enable the proactive delivery of information to your

you do, getting the message is not enough, can't teply rapidly to market signals with inf

10. Does your information strategy reflect the bottom-line importance of customer service?

Business is built on customers. Without them. there is no hortom line. Government is aborbuilt on customers, the public. And whether you're in the business of commerce or the business of swermment no objective of an information strategy is more fundamental than enhanced customer service.

The Bottom Line. If you answered No to any of these questions, you're not yet customerized. But you might well agree that this simple test suggests the enormous advantages of becoming customerized. And as the leader at customerizing business and government. Univys will work with you to provide the answers you need.

to adopting a vendor-independent approach to

We make it happen.

leading expertise at ensuring that an information strategy pays off, not merely shows off.

For more information, fax Graham Roberts on (44) 895 862807. Ask for our CUSTOMERIZESM assessment and discover how we can help your organisation earn high marks in an increasingly customer-driven era.

In 1968, ICL was formed as the great white hope of British comp

turing: the culmination of merging the computing activities of earlier manufacturers. Yet ICL was still dwarfed by ISM: George Davis showed that in 1969 ICL had a £115m turnover and spent £13m on

research and development, while IBM had a turnover of £3,000m and a research budget of almost £170m. Pictured above is ICL's maintrame

stems development centre in 1984, where a systems engineer is

loading an EDS 200 disc drive. Illustrated below is the mainline comput

at the University of London in 1985.

not. And neither can a growth-oriented company have too many customers. They're the engine that

customer as you want? ☐ Yes ☐ No

thoroughly plugged into your market

customers want? ☐ Yes ☐ No

The next best thing to reading your customers' minds is listening to what they're saying, aut unless you're constantly tuned in to customers' signals, you're missing messages that civild guide you to greater results for your business.

6. Is your information strategy focused on ng you hear what custom

the assignment. And we'll apply our industry-

13 STERREN (2) to a service mark of line to Long or along

## COMPAQ AND MICROSOFT. THE CONNECTION THAT'S MAKING "PLUG AND PLAY" A REALITY.

ust about everyonc who's ever used a computer has experienced the same thought: Wouldn't it be great if setting up or upgrading your machine was as easy as turning it on? The idea is called "Plug and Play". People have been talking about it for years. But now, an ongoing partnership between Compaq and Microsoft, working with other industry leaders, is actually making it happen. Plug and Play is the result of some very fresh thinking in both hardware and software - an accomplishment that tapped the combined engineering expertise of both companies. Together, Compaq computers and the next version of the Microsoft® Windows™ operating system (code-named Chicago) will deliver the long-promised benefits of true Plug

and Play: easy setup, easy expansion and casy connection to peripherals. Which means no more configuration headaches. No more hidden switches, cryptic codes or mystery. Even today, Compaq is shipping computers that will take full advantage of Plug and Play technology as soon as the forthcoming version of Windows is available. So the Compaq & Windows combination will quickly become the standard for Plug and Play computing. A welcome reassurance for people who buy computers.

COMPAQ Microsoft®

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#### **SYSTEMS INTEGRATION**

#### An expensive option for the foreseeable future

ike many computer terms, systems integration is hard to define. At one level, any computer-based information system must be integrated or it will not work. But the term has come to refer to a particular class of computer system - that is, one which is assembled from a set of components in a way which hides the technology from the

The importance of systems integration as a discipline has grown steadily since companies began the move towards open systems. A system does not, of course, need to be "open" to require integration - but this is where the largest

Proprietary systems are also "integrated" - but most of the integration is performed by the

atching invoices to

orders and goods-re-ceived documents tends not to be a favourite joh

or a high priority for business people, writes John Kavanagh.

British Gas North Eastern.

which has six districts and a

Leeds headquarters receiving

200,000 invoices a year from

8,000 suppliers, has automated

the paper chase with document

image processing and has reaped considerable benefit.

Paper movement has been

drastically reduced, people

holding up the process have

The perceived demand for systems integration has attracted a growing number of supplier and services companies

sold as a complete solution. Open systems bring the advantages of user choice and flexibility - hut there is a price to pay. They are constructed from hardware and software "components" which are usually sourced from several different manufacturers. They will almost certainly involve the use of a technological design framework which sensrates systems functions into users and services. This approach is usually referred to

Advanced skills are a prerequisite to bring these components together to create coherent and useful applications.

nowadays as client-server com-

Systems integrators must have a wide knowledge of "componentry" and how it may be

brought together successfully. They must also have strong software development skills because integrated systems invariably require some "custom-built" components to meet the application need.

The perceived demand for systems integration has attracted a growing number of supplier and services companies in the past two or three

Established hardware manufacturers in particular have seen systems integration as a growth area as margins on

> But many of the standards which make integrated systems possible have evolved from proprietary industry standards such as IBM's SQL database standard, which is used to link desktop data tools to data-

The procurement policies of

sion to force open systems by legislation has been good for the systems integration market," says Mr Philip Crawford,

ment sector.

starting to change:

Groupe Bull.

commercial sector:

He goes on to say that there

are other reasons why the demand for systems integra-

tion has grown faster in the

government sector than in the

"For the last two years com-

panies have been holding off

making large investment deci-

and obviously the recession

hits commercial world much

Mr Crawford adds that this

"The market has probably

has depressed the market - but

that there are signs that this is

more than it hits the govern-

sions because of the recession

DEC, Groupe Bull, ICL and Unisys have emphasised their systems integration talents in recent years and their service revenues have grown accord-

They are not the only contenders. Large consultancy companies such as EDS, Andersen Consulting and KPMG have also made a large dent in the market as indeed have traditional custom software developers such as Logica, SEMA and CGS.

Successful systems integration depends on a broad foundation of standards for both hardware connections and software compatibility.

Some standards are drawn from formal efforts by international standards bodies such as the International Standards Organisation (ISO) and the American National Standards Institute (ANSI).

Given the importance of open systems standards, it is no surprise that the lead in systems integration has come from the public sector.

government departments have pushed the cause of open systems and put many of them in the front line. "The UK government's deci-

grown at around 15 per cent when two years ago we expected it to be more like 40 per cent. But it is now being driven by the user. The demand for systems integration is coming from the user

UK managing director of because they are crying out for usable power."

all BZW's UK and internetional equity settlements with greater speed and accuracy. Aries handles up to 22,000 trades each day.

ent bank, Barclays de Zoete Wedd (BZW), one of the City of London's lea

nd share settlement system, called Aries. Developed and installed by Syntegra, the syste

This demand is manifested in the demand to integrate desktop PCs into existing systems. The PC is obviously the best way to deliver usable power to the desktop. Mr Crawford warns, bow-

ever, that there are dangers: The PC is two different tools. If you think of it like a car - it is excellent for driving around town but it is also pretty good on the motorway. Good systems integration makes sure that the corporate strategy - the motorway - does not overwhelm the desktop. he explains.

Groupe Bull's systems integration strategy, like many others, is based on developing the right combination of technical skills and relating these to business problems.

It also sees the wisdom of securing alliances with other

important players in the market and recently signed an agreement with software developer Microsoft to integrate PC software with its own larger

"This is more than a marketing agreement. We have had to work hard to prove to Microsoft that we have the integration skills and the support services to do the job," says Mr

he deal will give Groupe Bull advanced access to important Microsoft developments such as the Windows NT operating system, which looks set to be a leading component in future clientserver systems.

This level of software is increasingly important to the success of systems integration as indeed is the move to objectoriented computing, which will help to enforce standards for

Despite this, systems integration will never be easy - espe-cially as the number of choices open to users increases.

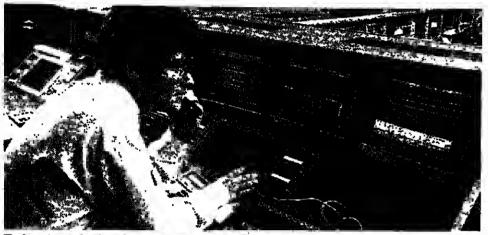
"Users have developed an attitude which means that they expect information technology to support them - whereas a few years ago they had to put up with what they were given. But because of openness, there are far more decisions to make now and it is certainly is not getting any the less complex, observes Mr Crawford.

Systems integrators are, therefore, in the unenviable position of having to keep up with every new technology development at the same time as meeting the growing demands of increasingly educated users.

For this reason, systems integration is likely to remain an expensive option for the fore-

fax facility is available. The

system was launched in 1991.



The importance of systems integration has grown steadily since companies began the move towards open systems. Integration will never be easy – especially as the number of choices for users increases.

Document image processing: two case studies

#### How automation cuts the invoice paper chase

ceived notes. These notes and the invoices were then returned to Leeds for the details to be keyed into the payments system. The documents were finally recorded on microfilm.

Mrs Christine Kelly, invoice supervisor, recalls: "There was paper flying ahout every-

been pinpointed and cash flow The invoice unit installed has improved. The paper chase used to software from Image Systems involve an order document Europe going to a supplier and a copy network of lCL personal combeing signed off as the goodsputers and Novell network software, which was already received note when the items used for basic office automaarrived, invoices were sent to tion such as word processing the finance department in and spreadsheet processing. Leeds, which passed them to

images of documents and two Fujitso scanners and three Sony optical disc systems were added, all supplied by Image Systems Europe. One of the optical disc drives is reserved for copying each day's work,

Goods-received notes and invoices are all scanned in as they are received from districts and suppliers. The order number is keyed in and stored with erence point: an order number includes a code representing the district which made the order.

The amounts on the invoice are also keyed in and put VAT has been calculated cor-

This information has to be keyed in because document scanning systems handle complete images and cannot recog-ulse individual parts of different documents to capture an

address or total figure. When the system receives an invoice it uses the order number to search for a matching not find one it automatically directs a query to the relevant district office where staff can access the central optical disc system through their own PCs.

Matched invoices are passed the relevant districts to be The PCs were fitted with through a validation program automatically to the payments matched against the goods-re- large screens to display full to ensure, for example, that the system on the region's ICL

figures add up and that the mainframe computer. The mainframe link is also used to retrieve information such as supplier details from central

> The system has brought significant staff savings and enabled fewer people to deal with the same amount of work while providing better service. The paper chase has been largely eliminated and keyboard data entry and verifica-

because more suppliers are says. "Before, we knew we had to accounts payable systems. A PCs running OS/2.

paid on time. "We no longer pay them late - or early," says Christine Kelly. "Soppliers would phone to ask for payment and it was difficult to find the right bits of paper. We now have easy access to all the documents and can see if pay-

ment is due." People's reluctance to check goods and sign goods-received notes was the higgest problem before but the system has got Cash flow has improved tic in this area," Mrs Kelly

queries but couldn't keep track of them. We now know exactly where queries are and can gee people up to act on them. We can now be proactive rather than reactive."

Software details: ☐ Product: Image Systems Europe tailors each document image and work flow management system to the customer's needs. British Gas uses a version called ISE Accounts Pay-

Accounts Payable: three British Gas regions, Tesco, Top Rank and Woking Borough Council. The company has 55 document and work flow management systems installed in the UK and Europe. □ Supplier: Image Systems

Europe, formed as a UK com-pany in Sheffield in 1990. Turnover in 1993-94 was up hy 48 per cent at £2.14m.
☐ Price: £100,000-£150,000,

including software, scanner and optical disc system but excluding PCs and networks. ☐ Hardware and operating systems: Novell netv documents to invoices and link Unix computers and IBM-type

#### A better way to manage contracts

A simple document image processing system installed by the pharmaceuticals company Medeva looks set for wider use following quick installation and enthusiastic reports from staff, writes John Kavanagh

edeva, the UK pharma-ceutical manufacturer, has installed Archis software from Belgian company Softcore to manage images of contracts, typically with other manufacturers, licensees and distributors.

Medeva has installed a network of five Apple Macintosh computers at its offices in Leatherhead, Surrey, partly to run Archis and partly to support office automation such as word processing, spreadsheet processing and links to the company's electronic mail sys-

The entire stock of 930 agreements, running to 18,000 pages, has been entered and all new agreements are scanned in immediately.

The paper contracts have always been kept in fire-proof cabinets and a list was maintained through a simple database system hased on the Dhase III product.

People working on particular agreements would consult the holder of the list, intellectual property co-ordinator Gail Beale, to see if there were any other relevant documents, and then hunt them out in the filing cabinets. All the documents are now on-line to all staff in the department.

"It could take hours to get through these steps and find files, especially if you wanted, say, all the agreements relating to a particular company," says Mr Peter Cozens, head of licensing and product acquisi-

The files were just stored in chronological order. We can now search on many criteria, such as company name and therapeotic area, so we can easily find the history of agreements in a particular field.

The system has improved the information we have available and our ability to respond to different situations."

It took Gail Beale three months to scan-in all the documents and assign keywords to each one. She and Peter Cozens agree that the system is very easy to use. A 'find' screen is presented when a user logs-in and a search is generated by entering the keywords.

ccess is being extended Ato the company secre-tary's office in London and the system has attracted tha interest of other depart-

We could turn out to be a pilot for the whole company in document image processing," says Gail Beale. "It'a a very impressive system and I could see other parts of the company getting considerable benefits."

☐ Software details:

☐ Archis, a document file management package combining document images, video and data and text files from other systems. The latest ver-

sion, 2.0, was launched in September 1993. Price: £995.
☐ Supplier: Softcore, the Belgian developer, formed in 1988. The UK subsidiary was formed in Uxbridge, Middlesex, in 1992. It has 47 staff, including five in

the UK. Turnover in 1993 was

£1.5m. Number of users: more than 200, including more than 50 in the UK. Hardware and operating systems: Apple Macintosh central processor; Macintosh workstations or IBM-type PCs

☐ Advances in the electronic office: see page 5
☐ For details of forthcoming FT surveys relating to information technology, see details

running Windows.

on page 12. □ An in-depth review of office antomation appeared in the latest issue of 'Software At Work,' the FT's review of business software, published on Thursday, March 10.

#### **INCREDIBLE, BUT**



#### TRUE

The Ericson EH237 is packed with excellent features. True. It has a 199 name/number memory to start with. Instant access to emergency and directory enquiry services. A choice of security and call harring options, call timers and call counts. Automatic recall and last six-number redial.

his barrery provides more than an hour's talk time or a full eight and a half hours on stand by. And the combination of a unique serial and hi-fi technology ensures that the sound quality truly has to be heard to be believed. Yet the EH237 weighs a mere 200g and happily sits in

Added to which it's so easy to operate you could do it

with one hand behind your back. Or, indeed, with no hands



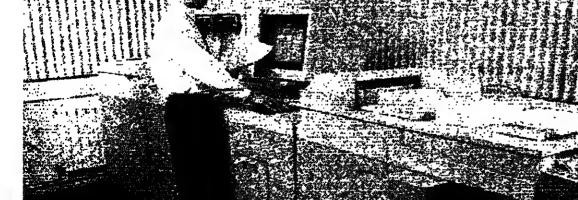
With our Handsfree Kit, you can actually answer the phone just by using your rotee. And special accessories like a windscreen holder and gooseneck microphone make the EH237 totally hands free in your car.

Not only that, but there's a music mute unit which automatically turns off the radio when you make or receive

Call into your nearest mahile phone dealer and put the EH237 to the test yourself. It'll be easy to see why it won the What Mobile' Phone of the Year Award. Quite frankly, it would be incredible if it hadn't.

MOBILE PHONES BY ERICSSON

For more details, contact: Erictson Limited, 3 Guildford Business Park, Guildford Survey GU2 55G Telephone: 0483 465353, Fav. 0483 465464. For Erictson Accessories, telephone: 0628 789911.



HEALTH SERVICE INNOVATION: in a cost-seving move, Advent UK, the commercial division of Greenwich Healthcare in south-east London, is using MEALTH SERVICE INNOVATION in the desired production system. Advert also sale its printing services to other trusts, thus making a profit for a networked Xerox DocuTech digital document for the health authority. The Xerox DocuTech system allows users to electronically send jobs for printing from investment in new medical equipment for the health authority. The Xerox DocuTech system allows users to electronically send jobs for printing from investment in new medical equipment. investment in new medical equipment for the basis can also be accepted via disk or scanner.

ersonal Digital Assistants (PDAs) and persocal communicators represent the next big computer market, and for some industry observers, possibly the last of the potentially large market categories for comput

ers.
These small computer devices represent the logical progression of computer technologies as they move from the desktop, to portable computers, to the lap-top and finally to the so called palm-top. But like much pioneering technology, the first generation of these devices have so far failed to meet user expectations.

However, there are encouraging signs that the second generation of products will overcome some of the problems. Apple Computer was the first to coin the term 'PDA' which is rapidly turning into a generic name for small computers with communications capabilities. Tandy, which sells the Zoomer, sometimes uses the term "personal information assistant," while IBM and

They all describe a small

Each has taken a slightly dif-

ferent approach but all are united by the fact that their

sales have been far short of

The Newton MessagePad represents the most ambitious

technology. It includes sophisticated handwriting recogni-

tion software that turns the "digital ink" that is written by

the user with a special stylus,

into computer text. While the handwriting recognition tech-

nology is state-of-the-art and

works better than most previ-

of the Newton fails to recognise many words, resulting in

a sometimes comical re-inter-

Potentially large market in the longer term

Like so much pioneering technology, the first generation of these small devices has largely failed to meet user-expectations - but a wave of improved products is on the horizon

Tom Foremski highlights advances in personal digital assistants

computer that can be comfortably beld in the hand or slipped into a jacket pocket, with a touch-sensitive screen with a pen or stylus input device and wireless communi-cations capabilities for sending and receiving electronic mail or faxes and transferring files

to a desktop computer.
A typical PDA will include software that consists of a word processor, a diary for scheduling appointments, and a database to store information such as phone numbers and The first PDAs to hit the

market were the Apple Newton ous handwriting recognition technologies, its performance has not impressed most users.

The handwriting recognition

> pretation of the users words, as satirised recently in the Doonesbury comic strip.
>
> The Newton also has problems with foreign languages, especially German where average word lengths are 10 characters instead of the six characters average for English words. Newton has also been faulted for its communications links which do not perform as well

as expected. The Tandy Zoomer, also marketed as the Z-7000 by Casio, has avoided, to a large degree, tha quagmire of handwriting recognition. It cannot recognise cursive writing but it does have a very limited ability to recognise printed characters, It prefers to store images of the user's notes instead of performing the difficult handwriting

The AT&T Eo Personal Communicator packs more technology into its sleek box than Newton or Zoomer, but it is twice the price. Unlike the others, it includes a 20-megabyte hard drive that allows it to store much more information. But it suffers from a short battery life - about two hours - and you really need to

MessagePad, Tandy'a Zoomer upgrade the machine's mem-and AT&T's Eo Communicator. upgrade the machine's mem-ory to use its fax and e-mail communications features.

All the leading PDAs have been criticised for being too slow and they all use different operating aystams which makes it difficult to produce a decent number of software

The Newton has its own proprietary operating systems, the Zoomer uses the Geos software from GeoWorks, and the Eo device uses the PenPoint operating system.

his multiplicity of operating systems makes lifa difficult for software developers. They have to try to guess which device will sell enough units to create a large enough potential market to justify the expense of applications development. And without sufficient quantities of third-party software, the PDAs face a limited appeal. Despite the initial problems

that have beset the first-generation PDAs, the second generation devices promise improve-ments and new features that will make them more useable and bopefully will fulfil the large unit sales expectations of market researchers.

Apple, for example, is rede signing the Newton to add better communications capabilities, and an improved operating system. Handwriting recognition is also improved but, in what is an admission of a less-than-perfect system, the next Newton will have the option to store images of a user's notes without convert-ing the handwriting to computer text.

AT&T, stung by the disappointing sales of the Eo Communicator, is redesigning the system, lowering the price and making it more of a mobila telephone with computer fea-

Other leading computer companies are also planning PDA introductions. Compaq Computer, Motorola, IBM, and Sony are fust a few of the big compa nies that will introduce PDAtype devices later this year. IBM's plans include a variety of PDAs designed for specific

tasks, such as one modei equipped with voice recognition for dictating documents and using a pen-input device for editing. Another IBM PDA is designed for e-mail communications, allowing usars to hear messages spoken in a computer-generated voice and

to dictate a response.

PDAs could benefit greatly from a standard user interface. General Magic, a Silicon Valley-based company, earlier this year unveiled its Magic Cap user interface which is specifi-cally designed for PDA devices with communications capabilities. The Magic Cap interface features a tiny graphical user interface using a buildings metaphor. Users navigate through the systems to reach different applications by choosing different types of buildings such as a post office,

for example, to send messages.

Magic Cap is designed to
work with on-line services such as Compuserve or AmericaOnline and specialised on-line services that use the companion Telescript technology. Because of the small storage capabilities of PDAs. on-line services are becoming a key factor in the success of PDAs. They will offer data storage services to PDA customers and also carry e-mail

AT&T recently announced its Personal ink on-line service that will support PDAs, and Apple's eWorld on-line service will support Newton users.

It is said that you can always recognise the pioneers by the arrows in their backs and although the first generation of PDAs collected a fair number of arrows, it is only a matter of time before the next generations become ubiquitous and



ogy in the PDA field. It includes cated handwriting recognition software that turns the "digital ink" that is written by the user with a cial stylus, into computer text. While the handwriting recognition technology is state-of-the-art and works ter than most previous handwriting recognition technologies, the performance of early models was

Technology developments in Canada

#### The clear message: innovate or perish

Canada's successful IT companies demonstrate that to survive they must be show greater speed and originality than their US competitors, writes Geof Wheelright

hen you live next to a country as large as the US and want to succeed in the information technology sector, you have to

innovate to survive. That is the story behind Canada's best personal computer and telecommunications companies - which seem to win new business by creating specialised solutions for surpris-

ingly common challeng Take the success of Canadian personal computer fax software maker Delrina, which hit the world markets in a hig way with its WinFax software for Microsoft Windows, a few years ago. Many companies had tried to produce software which allowed users to fax documents direct from their PC screens, but none had ever really achieved much success

company came along.

By closely identifying a need for simple design, low cost and an ability to work with dozens of popular personal computer fax modems, Delrina almost created the market for Windows-based fax software. Today it dominates that market. It has been successful in building on the reputation of WinFax with a range of formdesign products and fax add-on systems, and operates in a number of countries including subsidiary operation in the

with it until this Canadian

Likewise, the Toronto-based Vivid Group identified at an early stage the potential of "virtual reality" technology. Us-ing its implementation of this

idea, it started building entertainment and education

Today, the company's Mandala System, an interactive virtual reality product, allows users to indulge in a variety of "virtual" experiences including virtual ice hockey (something guaranteed to make it a big hit in Canada), virtual volley ball or soccer, and even a virtual swim in tha shark-infested waters of Australia's Great Barrier Reef. The Vivid Group recently won the ultimate accolade for its virtual reality technology when it was selected to provide a key element of Paramount Pictures Virtual Star Trek Transporter Experience.

According to The Computer Paper, the founder and publisher of Canade's largest computer publication, many successes of this kind do not stay Canadian for very long. Doug Continued on next page

C&C for Human Potential

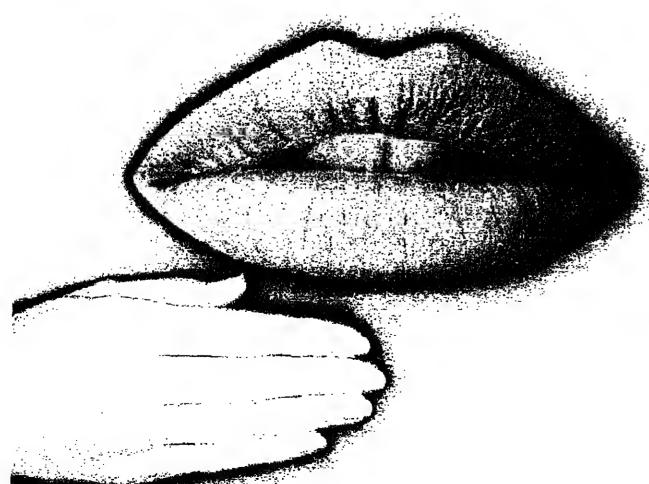
A5 notepad, the pockethook (model 386sl) combines the advantages of

an electronic organiser with the power and screen benefits of a st

PC. It links easily into a larger desktop computer at the office.



oic weighing just 4lbs and the size of an



ogether we'll improve your powers of communication.









NEC

■ VIRTUAL REALITY

#### Interaction of created worlds

Optimists see virtual reality as offering a richer form of

communication, but pessimists see it as a disturbing retreat from

the grimness of real life. Here, Philip Manchester looks at one of

culture. The phenomenon has

spawned a new language, a lit-

erary sub-genre (cyberpunk) and the idea of an ultimate vir-

tual nirvana called cyberspace.

There is, of course, not just one virtual reality, hut many. At one extreme, it is possible

to become immersed in VR hy

using an enclosed helmet with

a built-in display and sensor devices which can pick up

At the other end of the spec-

trum, a serious desktop flight

simulator such as Microsoft's

hody movements

puter software have their origins in play. From the early chess programs, which were used to demonstrate the power of electronic brains in the 1950s, to the multimedia shoot-'em-up video games of today, programmers have used games to push the envelope of software tech-

Advances in high-resolution graphics, data compression, animation and user interface design have often been pioneered in gemes software before making the transition to business. Games and other leisure-based uses of computers have also laid the ground rules for computer-generated, alternative worlds or what has come to be called virtual reality (VR). This new strain of software now promises to open exciting applications in busi-

"One way to see VR is as a

Flying the network: this is an experience that will enable telephone

Continued from previous page

las Alder, who founded The

Computer Paper seven years

ago, says that moderate suc-

cess is quite commonly fol-

lowed by US corporate acquisi-

tial venture capital is a tough

slog for most Canadian devel-

opers and entrepreneurs.

"There just aren't enough mil-lionaires in Canada," he says.

And even when Canadian com-

panies do achieve moderate

success, there is no "peer

group of aspiring billionaires" willing to spend the money,

time and energy to help grow

the Canadian companies

it." Alder says.

soft for \$130m.

"most companies don't make

And when they do make it.

they often become American

companies in due course. Take

the case of Softlmage, the Que-

bec-based computer animation

specialists, recently acquired

by US software house Micro-

be allowed to stay in Quebec and pursue its existing busi-

ness - while its technology

will also be incorporeted in

active in the Canadian technol-

ogy sector. In 1991 it purchased

Consumers Softwere, another

Canadian company, and turned

it into its first big North Amer-

ican research and development

facility outside the United

States. Based in Vancouver, it now

employs more than 100 people

and has been renamed Micro-

soft Workgroup Canada.

Microsoft has been quite

future Microsoft products.

In this case, SoftImage will

He says that even raising ini-

ers to have an overview of complex telecommunication structu

Search for venture capital

local personal computer indus-

try," says Mike Maples, execu-

tive vice-president at Micro-

"The Canadian personal

computer hardware and soft-

ware market is one of the most

But being a Canadian per-

sonal computer hardware man-

ufacturer is a tougher busi-

ness. Ask, for example,

Benjamin K. Tam, president

and chief executive of Bur-nahy, British Columbia-based

Tam has been making and

selling personal computers in

Canada for more than six years, but admits that it is a

tough market - particularly

when many Canadians can

shop quite easily for US computers over the border.

Agreement (Nafta) does not make this joh any easier.

"In the Canadian market, we

are affected by the economic

situation of our giant neigh-

bour, the US, as well as hy the

agreements and government policy of the Canadian govern-

"Nafta coutd affect us

severety in the high technology

to be strong in the telecommu-

nications side, we are not at all

competitive (in the computer market) because the sheer vol-ume is not there in Canada."

One solution has been to sell

recently-developed products,

including a network file server

sector. Although we are known

ment." he says.

am says thet the recent

Canada/US/Mexico North

American Free Trade

advanced in the world."

Darius Technology.

This virtual reality desktop system, now being developed by BT, allows

the likely growth markets of the next decade magical window on to other established in the US and the molecules do not allow worlds from molecules to minds. Another way to see VR is to recognise that in the closing decades of the twentieth century, reality is disappearing he hind a screen," writes Howard Rheingold in his book,

Virtual Reality. It could be argued that anyone who sits in front of a computer all day to do their job, already spends much of their life in VR. Even a simple pro-gram like a spreadsheet can be engrossing enough to its user to suspend physical reality.

The convergence of computers and communications pushes this even further. Bulletin board systems and networked chatlines are now well

> package for the PC, can be just as convincing. VR purists argue that immersion is the only genuine VR experience and there is research into all-over body suits which can take this to its logical conclusion. The aim is that such a sult should act both as sensing device to transfer body movements to the computer and also to convey a sense of touch.

Sensor snits to transmit body movement are already available. At the Virtual Reality Expo show in London in February, for example, the UK company Virtual Presence launched a 750 gram, Lycra suit equipped with 96 sensors, and there are others available

in the US.

"We see a bright future for system based on Digital Equip-

Work is also under way to hulld systems which can respond to objects in VR and transmit this sensation back to the user. Researchers at the University of North Carolina, for axample, have huilt e device which can be used to manipulate images of molecules with a full feedback system. The Argonne remote manipulator (ARM) is used to explore possible combinations of molecules for new anti-can-

computer processor, in both

that 22 per cent of his compa-

ny's annual sales are in the

And in the near future, he is

expanding to the Far East - a

move becoming increasingly

popular among Western Cana-

Tam recently signed a \$1.5m

joint venture agreement with a

state-owned enterprise in China. It will begin manufac-

turing computer displays in

Shanghai this summer. Tam says thet these products are being made for both the Far

East and North American mar-

In short, while Canada has

the resources and the talent to

create world-class high tech-

nology companies, it may have

to move quite quickly to sell

products outside its borders if

With a domestic market of

only slightly more than 25m

peopte, spread over thousands of miles, this is perhaps not

In terms of land mass, Can-

ada is the second-largest country in the world - and distribu-

tion costs can be high. But

judging by the successes of Delrina and the Ottawa-based

Corel Corporation (developer of

the popular Corel Draw soft-

ware and now owners of the

Ventura Publisher desktop

publishing suite)Canadian

mpanies can succeed on the

The secret is to be there from

surprising.

world market

these talents are to survive.

with the rest in Canada.

As a result. Tam now boasts

the US and Canada.

dian companies

growing fast in Europe. Netthem to fit together, the resiswork services like the Internet, tance is conveyed back to the CIX and Compuserve have creuser as a physical force. ated a multitude of widely-dis-There is also some speculapersed, electronic communities, each with their own

tion in fringe litersture about the possibility of direct connections from the human brain to VR systems - thus eliminating the need for a suit. At a more mundane and practical level, less intrusive

reach of the PC user - mainly for games - but increasingly for other activities such as mail order shopping or travel planning. Desktop computers are now powerful enough to handle high-quality, three-dimensional graphics and convey an impression of space. It is now possible to walk around buildings which do not exist, fly a jumbo jet through a thunderstorm and visit ptaces on the other side of the world

he concept of VR has, of course, been around for some time. The well-established flight simulator, for example, has been used for training pilots since the early days of flying. More recently, simulated environments have been devised for other training activities - such as working in hazardous environments.

without leaving your desk.

What marks ont the new generation of VR software is that it goes beyond merely representing the physical world like a flight simulator - or creating a possible future with a spreadsheet. VR enables the creation of worlds which do not exist and allows interac-

tion with them. This has spawned a generation of software tools which can help to visualise data in new ways.

Superscape, a VR tool from the UK company Dimension. has been used, for example, to show the effects of drugs on the human body. The software allows a user to navigate ment is that you can get way

The Picasso system

AT&T'e Picasso etill-imege

phone, above, allows users to

send full-colour, TV-quality still picturee, using an ordinary phone line - while simulta-

neously talking over the same line. The system, priced et

\$3,295, takes about ten seconds to transmit e single image. The

intended market is for engineers and other professionals needing

fast transmission of detailed

The device tooks like an office

phone, but containe a deta modem and transceiver. To

transmit e picture, users piug in

video camera, photo compact

disk player or digital still cam-

eras. On the receiving end, a

computer monitor or TV set dis-

drug down at the molecular

"The market is only now becoming aware that VR products are available for low-cost computing. Once their eyes are opened to it, the ideas come rushing in. We have about 30 applications built with Superscape and most of them have come from customers," says Mr tan Andrew, managing

lation VR, which is being used hy SmithKline Beecham, Superscape has been used to build VR environments as diverse as a tetecommunications network simulation for British Telecom and an exhibition modelling system for Dragon Exhibitions.

and sensors, Mr Andrew says that the demand is for applications which are non-immersive and based on the desktop: "Immersive VR was what caught people's imagination in the first place - but most people are uncomfortable with it. I'd say 90 per cent of what we do is for the desktop. But we have teft room to support the other devices and can offer users an upgrade path when they need it," he explains.

specialist has built a multimedia virtual exhibition system (VES) which re-creates the sound, look and feel of an exhibition floor. Virtual visitors to the show can walk up to a virtual computer screen and see a demonstration of a product.

people and machines is what is important about VR. tt lets you create spatial relationships which is very appealing - peo-ple understand the rules of space," says Mr Perry Huber, a consultant with Faberushi. "Proper VR allows you to

things in the business environ-

from simple graphical user

director of Dimension.
In addition to the drug simn-VR software is now within the

> Although Superscape can support the more exotic VR peripherals, such as headsets interfaces. The three dimensionality lets you bring a context to data and visualise it

Faberushi, another UK VR

The interaction between

move around in free form like surrogate travel." Mr Huher also sees VR changing the way we use computers and improving the user interface: "One of the obvious

rtium of universities and companies, led by BT, is supported by the UK gove

financial figures, but it will provide a window on to a virtual office, spanning the whole organi-

Data visualisation in three dimensions might seem far fetched. But imagine explain-ing what a spreadsbeet pro-gram could be used for ten years' ego.

VR offers the same potential

The virtual reality office: the £2.5m Virtuosi project is developing a compute

be able to move about this virtual office to interact and talk to virtual colle

to change the way data is viewed and presented. Software developers are

already experimenting with the possibilities. Maxis, e US software company, has built a VR package which simulates the Wall Street Stock Exchange in the form of a casino. Prospective investors can risk their funds and enjoy themselves at the same time.

The market for VR products like these is expected to grow quickly over the next few years and an increasing percentage of revenues will come from commercial applications. Market researcher Frost & Sullivan (F&S) forecasts a growth rate of 65 per cent a year in the US market, with revenues exceeding e billion dollars by 1997.

Leisure-based applications are expected to dominate throughout this period and show the largest growth. Another US market researcher - 4th Wave - estimates that 70 per cent of 1993 revenues for VR products came from the will increase to 76 per cent by

corate, regardless of location. The computer screen on their desk will not only give the lates

But commercial applications of VR technology on the desktop are likely to be the most profitable - with training, data visualisation and computeraided design leading the way. Specialised commercial applications which can harness the power of VR software will sell at a premium.

The parallel growth of high bandwidth telecommunications and multimedia technology both of which provide the infrastructure for VR applications - promises to make the market for VR software one of the most exciting growth areas into the millennium.

VR could also precipitate change in wider context.

The pessimistic view is thet it will lead to the disturbing future described by Aldous Huxley where people hide from the grimness of the physical world at the 'feelies'. The optimistic view is that VR will enable bumans to find a richer form of communication, unimpeded by the laws of the real

Ona thing is clear, an increasing amount of communication between humans will be mediated by computer software and, even when this is not called VR, that is exactly

Success for a VR software developer

#### The City gives its backing

he business opportunities that virtual reality software technology can offer were underlined recently by the public flotation of the UK company, Virtuality Group.

It came to the London Stock Exchange in October 1993 with a share price of 170p, valuing the company at £44m and turning its founders into multi-millionaires, writes Philip Man-

Since then, the share price has doubled and Virtuality is seen as a hot investment.

Started as W Industries in 1987 in the classic computer industry style - in a garage on the outskirts of Leicester in the UK - Virtuality earned revennes of about £5m last year from sales of VR equipment and software, placing it among the world leaders of the emergtog VR industry.

Its customars include Matsushita, MCA Universal Studios and games company Sega. Virtuality has also attracted investment funds from IBM and Motorola, and has ambltious plans in the VR software industry.

O-founder and managing director Dr Jonathan Waldren is reported as saying he wants the company to be the Microsoft of VR.

Virtuality's current products are at the high end of the VR market. The company concentrates on what it calls leisure products - although its definition includes education applications, as well as advertising and promotional tools.

Virtuality's primary product is an 'immersive' arcade game machine which sells for £25,000

upwards. Sega plans to install Virtuality games in the 'super-arcades' it is building world-

Clever software helps cut the cost of virtual reality

#### A new world on your desktop

ne of the most important recent developments in Virtual Reality (VR) is the fall in prices of hardware and

oftware packages. VR systems demand large computer resources and high-quality input and output which has been expensive until recentiv.

But advances in hardware technology, such as faster PC processors, larger capacity

storage and graphics software have made desktop systems

The most important element is the clever software which is needed firstly, to huild a virtual reality to suit a specific need and, secondly, allow a user to vistt and inter-act with it.

UK-based software devetope Dimension sees a growing opportunity in the emerging commercial market for VR

Its Superscape package, which sells for around £3,500, can be used to build specific VR environments on a desktop

The package has a broad range of users from British Telecom, which has built a virtual network with Superscape, to the Shephet School, which is using VR to help children with tearning

difficulties.

One of the more exciting applications of Superscape is Tyne and Wear **Devetopment Corporation's** creation of VR model of the £180m Quayside development

The VR Quayside is being used to view how the devetopment will look in advance and sell it to prospective investors.

Philip Manchester

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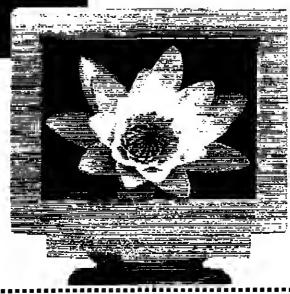


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functions or departments.

ingly dictate what happens in

straight into manufacturers'

production schedules. More-over, the development of mas-

sive databases provides tha

basis for neural networks which can aid decision-making

by tapping into past experi-

IT users in manufacturing,

too, have been thinking about

the next steps in their use of

manufacturing technology.

The most important initiative

among users is the AIT project

- advanced information tech-

nology in design and manufac-

turing - which is headed by

Daimier-Benz and stems from users' demands for more effective IT and better integration

of systems at different sites.

The pilot phase for the project, which comprises 16 aero-

space and antomotive compa-

nies from six countries, began

last November and the overall

aim is to strengthen the com-

petitiveness of key European

industries by three consecutive

irst, the initiative will

seek to establish a con-

sensus among European

industrial users of IT on their

most important future requirements for design and manufac-

Secondly, it will seek an

agreement on these require-

ments with the IT vendors,

and, thirdly, an IT research

and development initiative will he launched to support tha

commonly-agreed require-

Significantly, the initiative's

hackers say they want it to

becoma a substantial user

force recognised by the IT com-

munity, to ensure that future

products meet users' require-

action in three areas.

#### A central link in the chain

fter 20 years of dramatic A developments in the information technology used by manufacturers – from the earliest computer-aided design systems to modern relational databases and shopfloor management systems - there is no let-up in the pace of

Information technology (IT) vendors still see plenty of opportunities to fulfil the nanging needs of manufacturing companies, while the customers are reacting to the disappointments of the past by taking steps to ensure their IT needs really are met in future. It is partly because of past disappointments, and the fact that previous investments are no longer compatible with newer technologies, that

spending on IT by manufacturers remains a high priority. According to a MORI survey last month for the ASK Group, developers of husiness soft-ware, and the accountants Coopers & Lybrand, 82 per ceot of dom from the UK's top 1,000 manufacturers expect to invest heavily to IT in the next five years - and 60 per cent of managers expect to spend more

Andrew Baxter. The most popular planned investments are manufacturing management systems The most popular planned investments are manufacturing management aystems, where 73 per cent plan to spend money, and supply chain

expect to invest. This year's Computers in Manufacturing Show, at the National Exhibition Centre, Birmingham, from November 22-24, will demonstrate some of the state-of-the-art IT products seen by industry as a priority for their broader business needs. Examples are virtual reality and rapid prototyping tools to improve and accelerate product development, and justin-time software which allows manufacturers to operate lean

systems to improve perfor-

mance, where 62 per cent

hese and other technology developments now becoming available provide some clues as to what will be the IT needs of the factories of the future.

production techniques.

Mr Graham Williams, managing director of AT&T Istel's manufacturing division, believes the next five years could be exciting because of the products which IT vendors are offering industry in order to help to tackle key manufacturing problems.

The need for manufacturers to get closer to consumers has spawned the concept of the extended enterprise in which not only suppliers, but also distribution, is included. For example, says Mr Williams, IT can be used by brewers as a means of viewing the hopgrower and also the public house as part of its enterprise. Similarly, the generation of electronic point-of-sales data can produce a works order, and in turn create all the orders for

materials and sub-assemblies. This would aid the lean production process, as manufac-turers would only be making what their customers were

All the technology to do this exista, says Mr Williams. Indeed, it is already happening to some extent in the food

Most of Britain's leading manufacturing companies expect to invest Two other projects, combining users, vendors and univer-sities, underline further prioriheavily in information technology in the next five years, reports ties for the development of IT in the factories of the future. Just before Christmas, Crawindustry, and will start to hapley-based Reflex Manufacturpen very quickly in the process ing Systems, a subsidiary of Rolls-Royce Aerospace, won Mr Cliff Sbuker, managing director of AT&T Istel's Rover approval from the European Union for a project under the division, sees an increasing need for IT applications that can be applied horizontally Esprit programme known as Discrete Cell Control.

Over the past five years, the across processes rather than simply used to improve the performance of individual adoption of manufacturing cells has grown rapidly in industry because of their contribution to flexible manufacturing, reducing work-in-progress and enhancing teamwork factories, they will use IT to inject their requirements and multi-skilling.

Helped by an Ecu 1.3m Esprit grant, project leader Reflex and its partners will, over the naxt 18 months, develop an open applications framework aimed at providing a firm foundation for all cell control systems.

Reflex, a software house which specialises in manufac-turing control and shop floor scheduling systems, says the DCC will provide the means to design and build systems, and empower autonomous cell operation, while enabling the cell to co-operate with other production and engineering

director of Reflex, says the aim is a standard cell control envi-ronment which different IT suppliers can plug into efficiently, internal and external customers would also be able to view where their products are in the cell.

The applicability of DCC will be evaluated through pilot projects at two of Reflex' partners in the scheme, Intracom, the Greek electronics and telecoms equipment company, and the Odense Shipyard in Denmark.

Odense, which has moved to cell manufacturing to produce super-tankers is also involved in a project being carried out under the auspices of the fivecontinent intelligent Manufacturing Systems Initiative. This aims to work out how concurrent engineering - interdisciplinary teamwork to accelerate product development - can ba carried out in a global manufacturing context

TransTec, the Birminghambased specialist engineering group, is leading the European side of the project. Like the global, multi-site application.



Keeping the goods moving: Band Three Radio is specifically designed for fleet of es and their base. In addition to voice comm



Reflex project, it aims to
design an architecture - in
this case of a CE system for

Stock controt: in Bristol, a Rolls-Royce Aerospace engineer uses a recently installed Reflex computer system
to check the inventory of fabricated aero-engine products. Reflex Manufacturing Systems, based in Crawley, is
a software house which specialises in manufacturing control and shop floor scheduling systems. It is a subsidiary of Rolls-Royce Aerospace.



out computer-aided design and engineering application

#### **■ FAST SOFTWARE DEVELOPMENT**

#### Finding solutions takes time

n the ultra-competitive husiness world of the 1990s, a ompany's ability to create new information systems rapidly is a pre-requisite for sur-

The key is to find ways to build application software which are both flexible and scalable. Object-oriented computing, which sees an information system as a set of self-contained components, is the most promising approach and it is steadly gaining favour with both software developers and

Fast software development is a priority for both groups. A anrvey of delegates to last October's 'Objectworld' conference in the UK, for example, cited "flexibility to change and "reduced tima to market" as the two main reasons for adopting the object-oriented.

Object-oriented computing is

widely acknowledged to be the future direction for software development and most software developers have pledged their allegiance to the cause. The Object Management Gronp (OMG), an industry organisation which promotes

Object-oriented computing is widely acknowledged to be the future direction for software development. But discovering wavs to build software fast is a painstaking

process, says Philip Manchester

object-oriented computing, now claims 370 members and points to growing attendance at shows and exhibitions.

object-oriented approach is making the running at both extremes and is central to any debate on speed-ing up the production of soft-

here are several reasons:

☐ Firstly, object-ori-ented systems are built from sets of components which can be re-used elsewhere. This speeds up the development of new applications and makes existing ones easier to maintain.

□ Secondly, object-oriented systems operate in a way that makes software "portable" to investment in application soft-

☐ Thirdly, objects reduce

the complexity of applications

software by enforcing tight design disciplines.

☐ Most importantly, objectoriented development techniques make it easy to build ototype systems to demonstrate to users - which is widely acknowledged as one of

> development.
> "I think rapid application development is as much about the approach as it is about the tools you use," says Mr Vic Morris, UK managing director of tools specialist Powersoft.

"As far as possible you want to break the application down to make it easier for end users

the keys to speedy application

"If you look at what many users have done with their PCs - huilding complex applications with spreadsheets, for example - yon can harness that talent," he goes on.

terms of objects is the key, according to Mr Morris.

1

5

1

"In the past, we viewed applications as a set of functions like, say, an order processing system. It was very structured. Now with objects, we can think in terms of business processes and put in place applications which can snpport them," he explains. Mr Morris also places

emphasis on the "scalability" of applications. This means, for example, an application program built for two or three users on a small network should be able to cope with hundreds - or even thousands - of users on a much larger

"We bave recently re-positioned our Powerbuilder tool set to reflect this. So you can start with a cheap desktop version and move up to a full networked version and keep the same applications," Mr Morris says.

Other tool vendors have taken a similar approach because it can speed up production of larger systems if Continued on facing page

#### **FT SURVEYS**

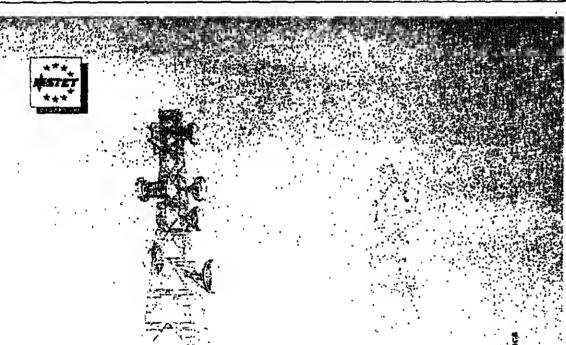
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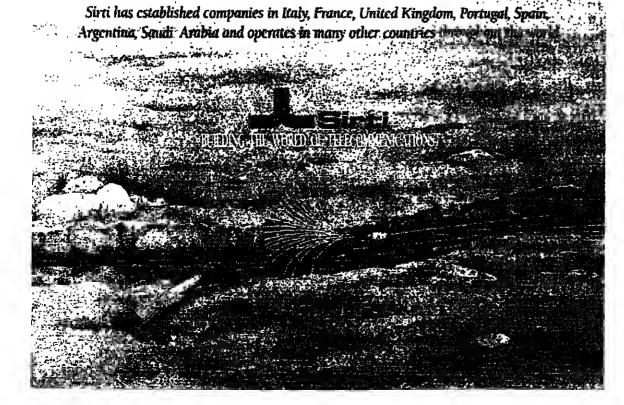
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**NEWS IN BRIEF** 

#### Most finance directors are dissatisfied with data management

Despite the widespreed acceptance of information techoology, more than half of the finance directors in a recent poll of top companies are still dissatisfied with the quality of their current information man-

This is one of the findings of a survey by the independent research group, MRD, which targeted financial directors from 100 leading companies in the UK.

While more than half the companies are now using their own internal IT department's resources to develop their strategies for information technology, only 13 per cent say they use an external IT

Together, these companies represented an investment in IT of more than £175m.

The survey, commissioned by European Software Publishng (ESP), says that 96 per cent of respondents felt that personal computers had made their work more productive, but the time-factor - not 'technofear' - was seen as the greatest restraint on the wider use

of technology. Even though the technology is sitting on their desks, still relatively few managers are using the communications and information-sharing capabilities of information technol-

ogy," adds the report.
"Large amounts of their day are spent in communicating meeting, telephoning, and so on - with their workgroup colleagues, but few are fully using technology to sopport and enhance these activities."

More details on the ESP Report from Sarah Howe, A Plus Group on 0753 790 700.

#### Outsourcing contract with Ford of Europe

Ford of Europe's parts and services operations division has signed a five-year outsourcing contract with Computer Scieoces Corporation (CSC), one of IT services.

CSC will provide Ford with IT services throughout Europe and take responsibility for applications development,

sales analysis and accounting. CSC won almost £1bn of outsoucing husiness in Europe

#### Pioneering with the cordless office

While most office workers are still 'tied to their desks' by fixed telephones, a new genera-tion of cordless telephone systems is set to open up a market worth up to \$5bn a year hy 1998, according to Ericsson, a pioneering company in this sector.

Ericsson began developing business cordless phone systems in the mid-1980s andclaims to be the first company to launch a DECT-based system, last year.

This Freeset system works as an "add-on" to a company's existing phone network. Low-powered radio base-stations are installed throughout the premises, and controlled from a radio exchange, which connect directly to the host telephone system. The main groups of users are organisations with a large number of mobile staff such as hospitals, factories and exhibition centres - whare instant communication is important.

The second main group of users are companies which are trying to redefine the nature of office work, applying the 'hot desk' principle. Digital Equipment Corporation, using tha Freeset system, has been suc-cessfully experimenting with a similar concept which it calls 'the natural office' at its Swedish offices in Stockholm.

"Once people start using a cordless phone at work, it's impossible to take it away from them," comments Ericsson's Hans van der Hoek, in five years' time, he expects one-third of all business phones sold will be cordless.

#### Digital's investment in Scotland

Digital Equipment Corporation, a leading supplier of networked computer systems, has announced an investment package of more than £90m for its Scottish manufacturing sites in Ayr and South Queens-

Mr Chris Conway, managing director of Digital UK says this investment confirms the company's commitment to manufacturing in Scotland where It makes a range of products from silicon chips to implemented computer systems -"half of Digital's revenues come from Europe and the UK leads the field in both and manufacturing," he adds. Digital's total investment in Scotland stands at £300m.

for the South Queensferry facility. This will increase production capacity for the Alpha AXP silicon chin

#### Quicker calls for Whitehall

GPT Communication Systems has won a large order from the Central Computer Telecommunications Agency (CCTA) for the supply, installation and maintenance of a new computerised telephone directory serving all 62 government departments in Whitehall.

The new system enables operators based in the Treasury to reduce response times significantly for about 5,000 enquiries each working day.

Mr Peter Spencer of the telecommunications division of the CCTA, explains: With over 30,000 people working in more than 60 different departments, our original system of using up to 12 paper directories had become too slow and cumbersoma, with an average response time of 25 seconds too high for what is essentially public service."

Tha new system allows the CCTA to locate individuals and redirect calls in a fraction of the time, eliminating callerfrustration, he adds.

#### New paging system for Dutch prisons

The Dutch group Teletechnicom and the Swindon-based company Blick Telefusion have won a contract to upgrade potentially life-saving radiopaging systems installed in Dutch prisons.

Since 1986, the two compa-nies have held the contract to simply radio-paging systems to 30 of the 45 prisons in Holland. But an unprecedented series of attacks on prison guards forced the Dutch ministry of justice to put ont a tender for a more sophisticated system to be developed.

Hostage situations have resulted in serious injury and even loss of life. The new paging system is marketed abroad under the title, Bodyguard. Location signals can be sent out by the pagers each time a guard passes one the many location code transmitters installed in prisons buildings.

The pagers also register the last two loctions of the user in case of emergency and loss of contact. This data is relayed to computer terminal programmed to show the location of all guards, using a schematic display of the prison.

Others features include a "man down" alarm, triggered by e floating mercury switch, a silent hostage alert button.

**■ SYSTEM SECURITY** 

#### Weak links mean big risks

As increasing amounts of data are moved around the world, the need to maintain security integrity has become paramount, writes Martin Banks

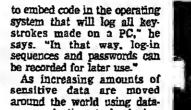
here is a direct relationship between the number of information tools used by a company and the chances of its information system being

A singleton PC used at home can be the victim of the occasional virus, which is often irritating to the user but rarely fatal to the system or the information. For a company with multiple. linked networks of PCs, workstations, departmental servers and eoterprise repositories however, the potential risks can border on the incalculable.

The PC bas moved from being little more than a toy used for tactical personal pro-ductivity applications to become one of the key strategic tools for delivering meaningful information to users. As such it has moved centre-stage in the on-going struggle to keep information secure and systems up and running.
The problem is, of course,

that the PC's history contains nothing to associate it with the concept of security. As security consultant, Robert Schifreen, suggested, eveo DOS, the PC's native operating system, can be readily re-written to make the machines a source of secure information.

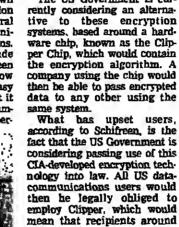
For example, it is possible



communications technologies, the need to maintain security and integrity becomes para-mount. This not only affects how users should view the weak links in their information systems - predominantly the PCs being used - but also security at a higher level.
Until now this has started to

look like a problem solved. The US Government is, bowever, currently considering throwing what many see as a large spanner in the works, in the form of what is generally referred to as the Clipper Chip technology. Currectly, many companies

regularly employ a data encryption technology known as DES (the Data Encryption System). This is one of several alternatives that are, ironically, published specifications. This would seem to degrade their value, but as Schifreen put it "Everyone knows how DES works, but it is not easy to crack. It can be done, but it would need a team of programmers a year and a Cray super-



computer to do it. By being a

published specification every-

one knows the weaknesses of

DES and works to plug them."

The US Government is cur-

system, and that the CIA has written a back door into the technology allowing information to be decrypted. The fear is that, either through theft, or the actions of a disgruntled employee, this code could fall into the wrong hands. Another fear is that, because it is from the CIA, the backdoor code may be made available to other national

the world would also be

obliged to use it. What makes

the situation worse is the fact

that Clipper is a proprietary

Perhaps most important of all however, is that because it is a proprietary solution, its weaknesses remain unknown. As all encryption systems are ultimately breakable, this is being seen as a serious potential weakness of the system.

lent as a strategic tool, other weaknesses may serve to compound the potential problems of Clipper encryption. For example, access control on PCs is still a weak area, though there are oow products available to solve the problem, if companies are willing to make the investments oecessary. This may be significant, for the most comprehensive solutions can cost up to £1,000 per PC.

Apert from internal security breaches, larger businesses are taking more seriously the need for elect

back-up services in the event of sudden disruption to their information networks. Pictured here are police

Many new PCs come with access control available as standard, but these tend to be simple password systems where the password is stored in a battery-backed CMOS memory. Removing the bat-tery, therefore, will normally circumvent the password.

ment in security is a key factor not always considered by users. This starts with education about the simplest access issues. For example, it is rare for thought to be given to individual passwords and most people make obvious choices, Many neers choose words like FRED, SECRET, PASSWORD and LETMEIN," Schifreen said, "which are easy to guess." Even Unix systems, increas-

ingly popular both as workstations and servers, suffer access control weaknesses. For example, there is a well-known bug in Unix Mail which will allow embedded code in a mail message, which runs when the message is read. The code can, tem to transmit the receiver's password file back to the sender.

It can also be used to transmit a complete system's pass-

As PCs become more preva- word listing. This contains safely encrypted passwords. There are, however, shareware products available - such as Websters, a program with 234,000 unique Eoglish words which, when passed through the Unix encryption algorithm, will produce a table against which the encrypted passwords can be compared, and cracked. Using numerals in passwords usually belps solve this prob

> Many such routes into systems can be trapped with sufficient thought and planning by users. For example, an increasing number of these programs are now available from Bulletin Board Systems, so access by staff to such systems must be closely monitored, particularly on the larger networks. One way of doing this is to audit the applications being run.

There is now a new class of application appearing that scans all the disks on a network to locate and report on all applications found. This should include those that are hidden behind filenames that do not include the standard applications file extensions such as .exe, .com and .bas.

in this way, systems manag ers can know the location of all approved applications, as well as those that are not approved. The benefits of this are twofold. Not only are potential tified. It also ensures that no illegal copies of applications are being used, preventing possible legal action by the application's authors.

#### with an average cost of £9,000 per incident. The average cost of an The latest investment pack-Michael Wiltshire equipment failure incident was £12,000, according to the survey. age involves more than £65m Rise of object-oriented technology

Continued from previous page:

yoo can start with small ones and "scale" them up.

"All our tools are based on Smalitalk so yoo can move from our desktop product Eofin to our corporate Syn-chrooy prodoct," says Mr Jeff Sntherland, vice-president of object development at software tools company Easel.

"But it is not enough just to scale up to a large number of osers. You need greater access

to database and tools which can deliver the performance.

"We see the answer in tools which will do 80 per cent of what a user wants automatically. The users can then concentrate on the bits they understand best - the business objects," he says.

Mr Sutherland believes that

not enough is being done to promote object technology at the application level. He is part of a group of software developers pushing for the

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revolutionising local and wide area customer and carrier networks.

problems for computer applications?

Europe's phone companies?

Demystifyina

specification of business-based

objects". "We have a problem at the moment with object-oriented technology. People talk a lot about code re-use - but where

We see the need for re-usable business objects which can give different views of the way the business operates to different users," says Mr Sutherland.

There are other, more serious, reservations about the use of object-oriented design for speeding up software - ini tially, at least.

A security centre, above, using Philips Telecom control equipment,

in the past five years. More then two-thirds of companies had not

Reports by the National Computing Centre show that more than half of

conducted a risk analysis of their information technology systems. The

most common physical threat to a company's IT system is power failure,

"Although object-oriented is the way forward, it is not a panacea. It's a solid framework to build re-usable code, says Mr Paul Burford, a systems engineer with objectpriented tool specialist Next "In the short term, it is not

a quick way to get more out of programmers. Although it reduces the number of lines of code you need to produce, there is much more design

input needed".
Mr Burford cites the example of the Swiss Bank which used Next's Nextstep objectoriented tool to build its

When we started at Swiss Bank four years ago we wrote objects that were oot re-usable so there was no advantage. But they recognised over time that they had chunks of re-usable software," he says.

"If you take a new environment it will never be quicker to start with because of teething problems. But by taking an object-oriented approach you have a chance to start putting in new features in a more natural way".

bile object-oriented design techniques provide a suitable framework for hullding applications, the real productivity benefits come from software

Strategies for selecting development tools differ - according to the size and data processing heritage of the individual company.

Larger companies tend to bring in programmer productivity tools so that their information systems departments can respond more rapidly to users' demands. Smaller companies give

tools. Many companies combine both of these approaches. The result is a growing demand for tools which can support fast software development and there is no doubt that these tools will use object-

their users their own desktop

starting point. What is clear, however, is that finding ways to build software fast, takes time.

oriented competing as e



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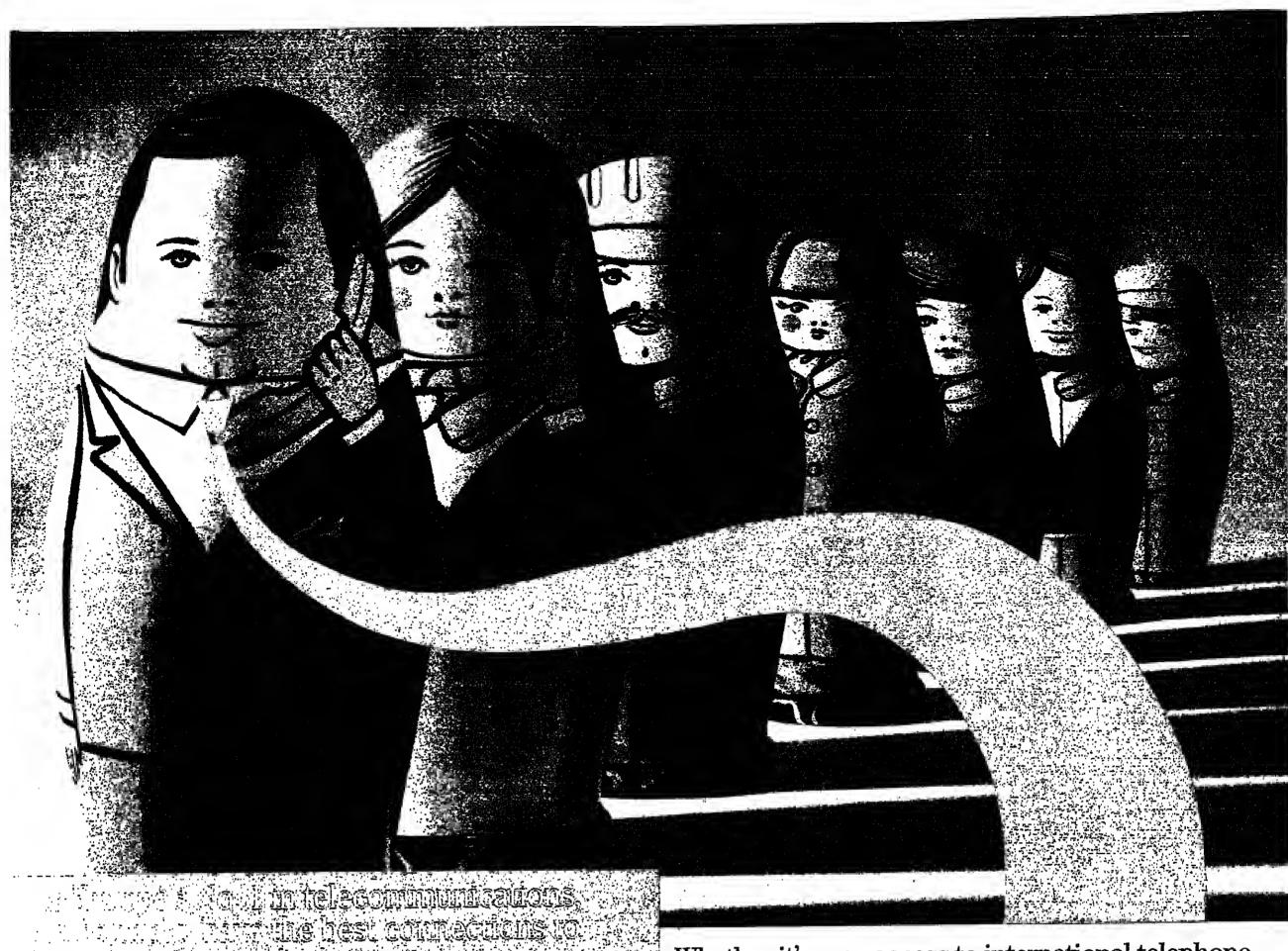












Whether it's easy access to international telephone lines, or setting up inter-office computer links, fast

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nications authorities in the east. It is, therefore, no surprise that Telekom is the leading provider of satellite based data networks and services in eastern Europe.

We have many other customized solutions to help you. For example, "Delos" is a Telekom service that has been especially developed for companies

that has been especially developed for companies who need direct access from eastern Europe to Germany's telephone network and the world beyond. You can enjoy high quality two-way voice, fax and data transfer and avoid the frustration of waiting for a free line.

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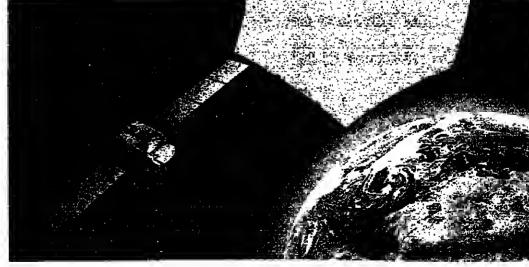
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Xi Software las been developing systems management software for the serious conmercial Unix user since the mid-1980's. Xi specialises to three main areas, print spooling and document management, batch job scheduling, and back-upfarchive/necovery software. Such facilities are a requirement for any business user moving to Unix.

Xi-Batch is a Batch
Scheduler with screen-based interactive job queue control, comprehensive job dependency and interlock facilities.

Xi-Text is a Print Spooler and Document Managers with interactive job printer and form control facilities. Both products are available with Xi-Windows Motif, Microsoft Windows Motif, Microsoft Windows and character based extensive TCPMP network support.

Arienave I Centra Inchools support.

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Comtec is one of the UK's largest independent computer transing organisations. Courses for end-user and IT professionals are provided in the Unix, Windows and MS-DOS environments at centres in Loadon and Leeds as well as oa-site. Open Systems computing requires intelligent, practical and rellable training support. As a Trading Member of UniForum UK, Contec is firmly behind the Code of Fractice (which includes the Training Procurement Outdellaes) designed to help buyers and sellers implement enterprise-wide computing successfully. Quality marks are glven by the majority of the 200 courses on the Comtec 'User' and 'Professional' Software Training Planners being accredited by all the leading software thouses and a corporate commitment to BS5750. Overall, after 12 years, it is the ligh quolity independent standards and solid track record of the Company which make it such an excellent choice for training on multi-vendor installations. Over 50% of Connec projects are now carried out as tailored training programmers of this son.

ORACLE UK

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Imperial Software
Technology Limited is a world
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builders of mission-critical
systems world-wide.

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builder for Moulf. X-Designer
is used by many Financial
Times 500 and Fortune 500
companies and has just won
the covered Advanced Systems
Best Product of the Year Oracle Corporation was founded in 1977 to develop and market the first commercially available relational database management system. Since then, Oracle has become recognised as a leading laterrecognised as a leading laterrecognised as a leading laterrecognised as a leading laterrecognised in management software and services. Oracle has grown to become, by revenue, the third largest independent software vendor in the world.

Oracle UK, established in 1984, is a wholly-owned subsidiary of the Oracle products and services throughout the UK and Ireland, through direct and indirect complete range of Oracle products and services through out the UK and Ireland, through direct and indirect channels.

Over the years Oracle UK has consistently added value for its customers by offering orange of complementary products, consulting training and customer care sorvices, and is now one of the largest UK software suppliers. Customers receive sales support from one of the Bubin office. Each office is equipped to reconstruct application conditions and provide appreprior solutions.

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ISI

Systems support is regularly identified as a major problem in multivendor Unix implementations. This is another area in which we excel.

Recognising that traditional Unix training does not solve the problem because it is specific to one vendor's version of Unix, Digital Learning Services offers true multi-vendor Unix training, including:

Lecture-based training for developers and support professionals in all major Unix variants.

· Customised on-site training

Course development and implementation

Open Systems strategy is paying off.

• UniPlex case study Page INSIDE

Customers count at Barclaya, Staffware Case Study Page 2 Taking the Opeo Route with UniForum UK, Page

There's no longer any doubt
ist ibbeed computing is focused
sersioner needs. Its leading
theologies and experience are
fiping customers to achieve the
enefits of Open Systems - not to
mythical future... Page 3

Can Unix challange the corporate mainframe?

Asks Peter Slavid of ICL Page 6

digital

Introcent the

COMPUTER TRAINING

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Xi SOFTWARE

(S.) Uniforum UK

UniForam UK orgao Monihiy Seminar Programme,

t of its annual Xtre market ultements service. The its abow the global open tems market is exploding -in the desktop to the main-

IBM puts the focus on the

Terminal emulation adopted by Kent County Coucell's Highways & Transportation

Richard Jaross, Executive Director, Uniforum Prudential Assurance embarks, on major Cilcot/Server strategy, 

Hewien Psekard/Sybase case sudy.

UniForum represents the lerests of computer profes-

DHL accounts for growth.

Otacle case study Page 6

Data General's John Cooo discusses open solutions for the enterprise, Page 7

Juneress of computer protesstonals who are or will be using
Open Systems. Just a few short
years ago that statement would
have read "...using Unix."

Much has happened to Unix,
but from the standpoint of
Universal that been that
Universal that been that
Universal that arrived; it's all grown
up and is embedded throughous
information systems at the curporate and industrial level,
worldwide. Its acceptance as
the computing model of choice
for users seeking interoperability, scalability, and robusiness
is no longer in doubt, and the
only rentanting question is how
fast and how effectively it will
expand its penetration into the
installed base, and how universally it will become part of all
new computer installations.
So, when I speak now of
Open Systems and Uniforuni's
role in fastering them, what do
I mean? Simply put, an open
system makes it possible for
users to run their apptications,
eamlessly across, computer

Future-Strength open systems by Geoffrey E. Morris, President and CEO, X/Opan

Businesses around the world have a choice. Either they open up their information resources or they prepare to close down.

The next Millennium isn't going to be business-friendly to those who I gnore change.

The information deluge is about to hit us, Within only a few years we will see information begin to paur out of palm tops, mobile systems, TV set tops and retworks in the alr. Information packaged for individual consumers, whether the demand is corporate, aocial or personal.

lerri marketing support activity by any corporation to atract commercial partners or covet start-up market share.

Future-strength open systems will be built on fong-term customer value - driven by business demands, adapting rapidly to innovation, agreed independently to the world market in the shortest possible time.

is the key to business

Transe.

The world's najor business—
Es report their external spending on open systems will dontinate 58% of the world market
by 1996 - accounting for atmost 60% of U.S. external information technology ITT)
expenditure, 36% of spend in Systemstandisch Asia, and 70% of IT spend in Europe. For wo-thirds of those companies, silent server applications are

DTI welcomes OSIS, the newly lauoched oo-line loformation service. Page 3

Department,

Wick Hill IMX case study.

Page 4

Going for a test drive with Digital.

• Increasing demand from the UK corporate sector has sed Digital to expand its popular Apha AXP Internot programme by anaking six new Alpha AXP Unix systems available to eustomers through futernet.

Page 4

Open

systems:

Novell's Tuxedo makes OLTP fit Opeo Systems, Page 5

Blenhelm OoLine launches
ENTERPRISE IS.

The major new event providing
user solutions.

Page 6

The Business of the Jojernet,

th is barely a quarter of a century since the first computer nelworks were developed by academic researchers who wanted

know that the development of the next great advance in com-puting will also spring from the Open Systems family, Geoffrey E. Morris, President and CEO, X/Open NIX more than just

industry are likely to take.
The future of open computing is bright. I need only look to growth of such Unix-based breakthroughans the Internet to

O John m

SECTION IV

PINANCIAL TIMES

Chillorum UK

PROFITING FROM OPEN SYSTEMS

ADVERTISEMENT

A Review By UniForum UK

101

That's whot business customers need from our industry. Open systems are now an integral part of their information future and are too important to the world's business and economic growth to be gang-led.

Amid the information deluge of the years ahead, future generallons of information consumers will hold all of us responsible for how we manage the next stage of mass market open aystems development.

Unix Project for delivery to X/Open's Fastraek specifications service. Unix was also given its own independence, with Novell announcing its intent to transfer Unix licensing to X/Open on behalf of the open systems industry. All of these developments represent major extensions to the world's open systems platform, and are scheduled for delivery to the world market, fully approved under the X/Open brand, during 1994.

Other groups are already working to create new standards for the innovative consumer technologies, multimedia, TV set-tops and embedded information and control systems. Some of those groups are working at a product level, some at an industry level.

Whot they must all now realise is that only by working to mass and coliver on the promise of information on demand and provide real consumer value to o mass market of information users.

Developing future standards cannot be managed as a short-

That's why the world's computer systems and software suppliers now recognise the urgent need to take open standards to market as fast as possible. Without standards their resources will be deployed solely to maintain past legacies, which represent a dwindling customer base. With attandards their products and services will become more attractive to customers. They will avoid the costs of re-inventing technology that others will have more resources available to innovate for their customers. They will be able to reduce time to market for their products. And they will be able to reduce time to market for their products. And they will be tunning vibran healthy businesses which directly benefit their customers, employees and sharcholders.

Their whole future now depends on their abllity to meet ever tougher customer decmands, and to atteact higher devels of standards based open systems investments. In the years to come.

Open client/server systems and applications are now sweeping through organisations, devolving power, distributing ondermand information where it's needed, and changing business processes on an unprecedented scale. Those customers are not only benefiting from increased choice and better value in procuemen. but also from the easier use of technology, and greater flexibility and effectiveness from their IT solutiums.

personal.

Future-strength open systems - condunally incorporating new worldwide standards are critical to this progress. Without practical, common standards between the technologies, the information databases, and the networks, the future will be more a technological Hades than an information haven.

The world's businesses and governments are now getting the message. In ten years open systems have already become the Industry mainstream - solving the problem of incompatibility in computing on a massive world-wide scale.

X/Open surveyed thousands of customers of information systems across five continents in 1993 about their buying patterns for the next three years as

UnlForum UK launches Code of Praetlee.

With workstations that lead the industry in price/performance and multi-user systems catering for as few as two or more than 1,000 users. Digital is emerging as a leader in the commercial Unix market. We offer a wide range of Unix platforms based on our award-wirming Alpha AXP microprocessor. Recently, IS managers surveyed by Computer-World rated Digital's Unix as "the most open Unix" based on compatibility with interface standards, application portability across multiple hardware platforms, support for open communications standards, interoperable support and other key criteria. Our commitment to Unix is demonstrated by the fact that Digital has invested more in Unix engineering than in any other aren of technology. In October 1993, we laid out plans for providing full commercial Unix engineering by 1996, and we are the only Unix vendor to opplications an any platform. In the history of coupuing. In addition, several OEMs - including Olivett and Crey Research - are now Digital's Alpha AXD.

Established in 1983,
UniForum UK is an independent not-for-profit user organisation, whose prime function is to assist British business and government with the adoption of international standards in computing and communications systems 10pen Systems!
With over 1,200 voting members in the UK and affiliations with comparable organisations in over 20 cowatines,
UniForum UK achleves its objectives by providing unbleased information, publishing Open Forum magazine monthy (with a circulation of application case studies) and the Guide & Directory now in its fourth edition. In addition, the organisation publishes a Code Of Practice And Trading Slandards, organises Seminars and Events, sponsors the Blenheim Online exhibition, the organisation publishes on behalf of its members discounts on behalf of its members discounts on publications and events and represents the organisation, would benefit from membership of UniForum UK call 081 332 0448 for an information pack, without obligation.

A keader in the development of Open Systems. ICL is an information technology company specialising in systems integration in selected markets. Operating in over 80 countries worldwide, with 24,000 employees, ICL generated revenues of about £4 billion in 1993.

ICL has developed a culture of change which has resulted in a flexible and responsive organisation. It's principal activities are now grouped under three businesses.

INDUSTRY SYSTEMS businesses.

INDUSTRY SYSTEMS businesses specialise in systems integration in the retail, financial services, public administration, travel and transport, manufacturing, will-ties and healthcare markets.

A comprehensive range of SERVICES to help our customers exploit their IT invest men. Facilities ranangement and enterprise-wide support are provided for products from all major international hardware and software supplices.

TECHNOLOGY businesses from of hardware and software products. These originole from our own aubstantial development programme, our relationships with partners and our links with Fujitsu.

ears to come.
Last year hundreds of supplirs worked together to develop
he Common Desktop
sirvironment and the Unified

integral parts of the computer system, the chorus of user connipalints has changed to a chorus of user demands. It now seems apparent that these demands are being heard. The proof is seen in some of the past year: a Common Operating Software Environment (COSE) was announced by leading industry wendous. A broad based attempt to unify Unix was recently announced, and the "owner" of the Unix tradenmer, Novell, has given exclusive license of it to X/Open Company, Ltd., to the Unix tradenmer, Novell, has given exclusive license of it to X/Open Company, Ltd., to the Unix tradenmer, Novell, has given exclusive license of it to X/Open Company, Ltd., to the Uniforwith's role in all of this has been to facilitate and promitted adoption by all Unix-systems providers.

Uniforwith's role in all of this has been to facilitate and promitted dards and the independent standards and the independent standards and the independent formitted in Copen Systems at our annual this least womener of its thand if the cummon desktop environment of the Northerner annual Uniforma. This largest of all Open Systems and trade Show in San Francisco. California. This largest of all Open Systems standards and trade Show in San Francisco. California. This largest of all Open Systems standards and trade Show in San Francisco.

in our industry and is something our organisation has contributed to.

Our emphasis as a membership organisation has been on the end user, providing them with products and services at the local level via our network of 32 inhemational affiliate groups, and on a global level through our publications, seminars and on-line access. Our philosophy has been to champion the needs of those who are seeking to increase their information systems effectiveness through the use of Open Systems. Uniforum puts this philosophy into practice hy providing educational formms where vendors and users caunot only meet hut where they can learn fram and cooperate with each offer. Cvoperation of this sort hus been in short supply and has meant growing pains for the industry tespecially for users and independent software vendors.

It is not really surprising but worth noting that the interests of Open Systems vendors and those of the end users are not always the same. The desire to always the same of interopered those of the end user are not always the same. The desire to always the same of underprovered to always the same of the end users are not always the same. The desire to always the same of the end users are not always the same of the end users are not always the same. The desire to always the same of the end users are not always the same of the end users are not always the same of the end users are not always the same of the end users are not always the same of the end users are not always the same of the end users are not always the same of the end users are not always the same of the end users are not always the same of the end users

StayAhead Training is an independent training organisation based in London, special-listing in Unix, Uniplex, Informtix, C and C++ Programming training.

Scheduled and customer courses are now standard in the Industry. StayAhead not only support this approach, but have grown an excellent reputation among their many prestigious clients, who have continually used StayAhead's ability to tailor training to meet their specific requirements.

If your staff aren't performing to their maximum potential, you're losing money.

If you're losing money.

If you're losing money.

Investing in a training course is not money spent, it is money in the more chance you choose, the more chance you restructing are building a reputation of supplying no nonscrize, value for money training. With an excellent instructor/delegate ratio and with ervised repeat business. we're a name you're going to hear a lot more of To Unloek your Full Potenjial ring StayAhead Staffware is the leading independent workflow automation system, authored and distributed by Staffware Ple. The company pionecred computer based workflow automation as early as 1984, and currently has 30.000 users of Staffware worldwide - an achievement which has been recognised with a Queen's Award for Export. Staffware is integrated with other software products, including databases, electronic mail, text and image processing, and general office applications. Staffware has been adopted as part of their strategic client server offerthas by a nurriber of major organisations, such as IBM, ICL, Unisys, Bull and Data General. The company also has strategic alliances with Uniplex, Novell and Litus Notes.

Server versions cover oil the popular Unix platforms, with support for character based terminals or Windows as clients.

Staffware PR, 46 Chagford St, London, NWI 6EB

Peritas is one of Europe's largest comuercial training organisations, with training available worldwide. The company runs on average 80 pany runs on average 80 scheduled training courses each week of the year in addition to bespoke and on-site training programmes for its 3000-strong customer base. Peritas is also the UK's largest Open Systems training. The company is also the UK's largest Open Systems training. The company is Unix courses were anong the first to receive accreditation by Unix International. Its courses eddress management, support and development requirements. In addition to its generic Unix courses, Perias also offers training for Alix, Solaris and SCO Unix environments. Other portfolios include relational databases and networking. With 25 years caperience in the ICL group, offers a complete training certaining, and full serviced training and full serviced training. Berliacs on (+44) 0753 851483

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IST's workbench technology is packaged and marketed by computer manufacturers and software vendors as part of their application development environments.

The Advanced Technology Group specialises in the application of formal specification methods to safety-critical and high-integrity software systems. IST's ZOLA Z-tanguage system is used by major companies, government ogencies, universities and research establishments world-wide.

IST's origin go back twelve years to Imperial College, London. The company is bused in Readings, with offices in London and Combridge.

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PERITAS An ICL company

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FINANCIAL TIMES

## Five year Open Systems strategy starts to pay off

The Foreign and Commonwealth Office is an organisation of some 12,000 people including locally engaged staff located in approximately 250 locations around the world. Because of the difficulties around the control of the difficulties of the diffic cult security requirements, the FCO had not invested heavily in IT in the early 80s. Systems had been installed on an ad hoc basis, primarily under 18OS for its portability and under DOS for its availability but no clear strategy. id under DOS for its avail-bility but no clear strategy ad been followed. In fact, it as estimated that in 1987 at ast 10 different WP systems were in use alongside various peraling systems, hardware

piantorms, purchased applications and bespoke systems. This was a result of reactive support for user requirements rather than strategic planning. Early In 1928, the FCO adopted an Open Systems technical strategy. By 1992, following an extensive analysis of the IT requirements of the organisation, the Foreign and Commonwealth Office (FCO) published a five year Creen Systems IT strategy. port and finally, adherence tandards to chable integra-

It was necessary that the Open Systems strategy met a number of specific needs arising from the unique nature of

The strategy therefore entailed the implementation of POSIX compliant office systems to replace existing BOS/DOS systems and the introduction of similar systems into secure areas with

the overseas FCO operations. Supplying, installing and supporting systems in such diverse locations has to be made as simple and cost-effective as possible. The the FCO selected Uniplex to supply the office automation software. Informix to supply the database and BRS Search to provide free text retrieval.

Now, two years into the

the ongoing support of bespoke packages. Lastly, the freedom to pick and choose suppliers has increased and the dependence on axisting suppliers has been reduced, and brought substantial financial benefits through competition

h newest, latest gadget but within the FCO the IT organisation has so far gained immense credibility for delivering the strategy that the organisation needs whilst The most valuable internal benefit of having a published five year strategy is that the end-user department can see that there is an utilimate goal. According to Ling, "It is only human nature to demand the newest latest moders."

keeping the individual customers happy.
"The approach taken has been to use not leading edge technology but systems that are proven to support such a complex organisation. The system has to be simple enough for widespread use in remote locations but robust and sophisticated enough to address the security requirements of birth:

confident that a document composed on a laptop whilst travelling can be easily and securely communicated back to the UK on arrival at a post. By the fate 1990s it is planned that there will be a worldwide interconnected POSIX compflant office system throughout the control office system throughout the control office system throughout the control of t

policy forms, and so on, so that they can be distributed around the organisation electronically.

It was soon realised that the imaging system, although a significent step forward in document handling, did not get to the root of the problem of how to control and organise the flow of these electronic documents from one member of staff to another. The solution was Staffware. Now, as soon as a document is received, it is scanned and indexed, fol-

hosts monthly

briefings

UniForum UK

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s the security require-of highly sensitive

Barclays Financial Services (BFS), with 3,500 staff and 1,500 sales people is one of the UK's most successful financial services organisations, dealing with everything except personal

The company came to Staffware workflow automation via document imaging, after it installed a system at its Croydon-based general insurance office to scan and digitise new business documents, such as customer correspondence



General Manager Jennifer Condan, outside of OPENframework Ceotre in Dublin. The centre, established ICL, specialises in the delivery of state-of-the-art, imaginat solutions to the business problems of cilents from all over a world. Jennifer's highly skilled team focus on the usability a potential for change of the systems they deliver. Some of the systems they deliver.

prices being inclusive VAT.

For more information con-tact UniForum UK on 081-332 0446/0455 or fax 081 332 0448

MNOVELL The Past, Present and Future of Network Computing

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STAFFWARE CASE STUDY: Barclays

## Customers Count at Barclays

**Financial Services** 

be directed to a manager. A memo can be attached to a customer document outlining what action is to be taken, by whom, and by what deadline.

The system sets reminders and provides a full audit trail of what actions have been carried out. For example, if a letter to a customer is not responded to by a certain deadline, a reminder is generated automatically.

One of the main benefits of using workflow automation is that Barclays Financial Services has become more flexible in the way that it runs its customer service department. The system has made it easy for anyone serving the customer to retrieve documentation online, without the problems associated with more than one person at a time having access to a central file.

Staffware is now being implemented at the company's Stratford and Peterborough offices for managing investment, tax and trust business, and it is expected that around 450 staff will be using workflow in due course. Currently, around 2,000 transactions per day are being handled by 200 users on two systems

## The Business of the Internet

## by Bill Thompson of Computer College (Unipalm Group)

It is barely a quarter of a century since the first computer networks were developed by academic researchers who wanted to connect their computers. Now networks are central to many business IT systems. More and more of these networks are being connected to the Internet.

The Internet is not a single network but a network of networks spanning the globe. It provides the computer equivalent of the telephone system, permitting any computer to communicate with any other computer, wherever it is located. The Internet can be used for file transfer, database services, news and weather reports and even "decktop bearming".

As it has grown, the Internet has changed from an academic and research oriented network to a secure and reliable medium for business communication. The academic and research communities are still significant, and pans of the Internet are still state-funded. However parallel commercial services exist in most countries, and companies like PIPEX are able to provide highly reliable and secure Internet access to companies which do not wish to build their own networks. While there is still a wide ranging debate about the evolution of the Internet, commercial use, once the focus of so much argument, is, now dominant. TCP/IP is an excellent example of free murket competition in action, since the ideas are available to anyone, making the quality of the implementation the only real differentiator. Products which challe personal computers to connect to TCP/IP networks are the freus of most compe-tition since the market is the largest. A leader in this area is a product called PC/TCP, developed by FTP Software Inc. FTP employ over 400 staff in their US offices, desli-cated solely to developing and supplying TCP/IP solu-tions.

8

TCP/IP is often called the plumbing of the Internet: in conjunction with the physical network it provides the ability to pass computer data from A to B. This connection is used to provide facilities such as electronic mail and information services.

Until quite recently electronic mail was limited to text. However a new luternet standard, called MIME

It is only possible to connect the networks which make up the Internet because they use a standard communications mechanism. Called TCP/IP, it was developed as part of a US government funded project to build robust military networks. It is an "open" standard, not owned by any single corporation or body. Anybody who wants to can develop products which match the standard and their system will he able to communicate with all other systems developed to the same standard.

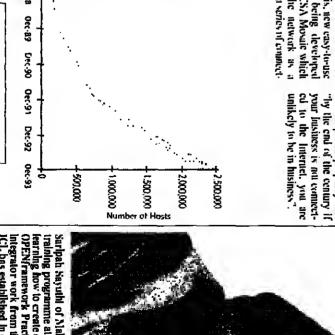
(Multimedia Mail Extensions) allows a text mcssage to be sent with a non-text "attachment" such as spreadsheets, graphics and pictures. A new generation of mail programs, led by Unipalm Group's Mail-IT, is capable of sending and receiving mail with these attachments.

More and more Internet resources are being put into electronic publishing. Many magazines, museums such as the Library of Congress, and commercial services such as Inforcheck and the Dow Jones, are all available online. To proutoite this, new easy-to-use tools are being eleveloped such as NCSA Mosaic which the network its.

ed and cross-referenced documents which can be accessed directly.

Amidst all of the discussion of virtual reality and "cyberspace", many commentators are missing an important fact. The Internet is not a future dream but a current reality for businesses as diverse as Barelays Network Services, using it to exchange data, and the free advertising magazine Loot, using it to link its offices in London, Nottingham und Manchester. We are already making extensive use of networks and it is an oft quoted proplecy that "by the end of the century if your hustings is not connected to the Internet, you are unlikely to be in hustiness." ments.

Svensku Arbetsgivareforeningen, the Swedish
employers confederation,
experienced difficulties in
disseminuting information to
its member organisations.
Complex reports on economic
trends, industrial conditions.



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Solutions for Review By UniForum UK the 

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## by John Coon, Marketing Director, Data General Ltd.

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In the past, the enormous sums invested to information technology have been targeted at existing processes doing things faster, more accurately and more reliably. Most organisations still conduct business using the same procedures through departmental structures that remain largely unchanged.

Technology has now advanced into a new arena enabling companies to reassess the ways in which business is conducted. Alongside this technology push, customers are imposing their own pressures for change with a new awareness of quality of service and price. tive advantage and more effi-cient and effective business processes, that Open Systems technology is playing a key role.

Across Europe, many organisations are already using the fatest advances in information management to change business processes, often tackling activities in ways previously thought impossible. The redesigned processes are giving these organisations significant market advantages.

It is in this environment of change, to achieve competi-Advances in the way data is stored and managed is facili-

quality of customer service, and ultimately company profits depend on the activities of staff and management. Staff with ready access to Information are motivated and empowered to perform effectively. If managers can also provide the freedom to exchange knowledge and experience, the cuffre enterprise is able to function as an efficient, cohesive unit.

Open Systems and Client/Server computing mre a natural fit with these business objectives and as a result are beconting the agent for cultural change, acting as a catalyst to empower local staff and focus activity around the needs of customers.

The flexibility allowed by compatible, Open Systems and the comprehensive range of products which casily work together, allow new technology to be introduced in pace with the identified business

In Spain, AEGON-Union Aseguradora has replaced its mainframe systems with interactive applications running on 30 distributed Data General Unix servers supported by over 70 gigabytes of CLARIION high availability disk arrays. Until recently, such volume of storage

Opan Spiutions at Work

role,
Business productivity, the quality of customer service, quality of customer service,

and use of Information, deploying the key data to the parts of the organisation driving decisions and management. Moreover, certain technologies that were considered to be only part of the "proprictary" world are now readily a vailable. tackling such issues as enterprise-wide administration and high availability - essential considerations of any large systems investment.

As systems continue their rapid improventent in performance, new applications for enterprise server and client-server processing are possible and the business benefits of Open Systems technologies are a reality (rather than just u promise) across a diverse range of industries. recognised that customers prefer to take out insurance with companies which provide fast, competitive quotations and efficient service. By installing a network of servers, AEGON is able to deliver information close to the point of sale where fast decision-making is a key factur in winning new policy business. Local staff are linked directly to Madrid and are able to process policies and claims instantaneously. New policies, fonnerly several months in development, can aow be tallored for each customer within a matter of days giving AEGON a head start in responding to market changes.

Computer-supported telephony based on open Unix servers is playing a major role in making Abbey National Direct one of the bank's most profitable operations. Calls are routed by a powerful Unix system running automated call distribution software. Finnncial specialists enjoy rapid response when extracting or entering customer details in the course of a safes call. The system also schedules outgoing calls, quickly refreshing telesales screens with relevant scripts and customer Information.

Versian Hammenstedt has it

changes.

A major British hank recognised that companies must change methods of doing business to suit their customers. Abbey National formed a separate telemarketing division to lundle a growing trend to purchase mortgage, insurance and other financial services by telephone. Telemarketing relies on rapid response and the efficient delivery of information to the point where cus-

Verlag Hoppenstedt has a high reputation for the quality, speed and accessibility of its financial and business information services. The publisher's large data hanks hold share prices, company results, a 'who's who' of business together with comprehensive details of products and markets. Customers throughout many European countries rely on this information to guide their investment, acquisitiou and marketing decisions.

The transfer of its databases from mainframe to Unix servers has enabled Hoppenstedt to give customers, and editorial staff, direct access to information sources and much more sophisticated search facilities. This fits well with the company's overall business objective to deliver the highest quality information matched precisely to customer require-

paper. Everyone received the same level of detail.

SAF needed to share an increasing volume of information with staff in Stockholm, regional offices around Sweden, Brussels and via these staff with some 43,000 Swedish businesses. A network of distributed Open Systems servers was chosen.

SAF replaced its existing mainframe with an open network of distributed Open Systems servers was chosen.

SAF replaced its existing mainframe with an open network based on 13 A ViiON servers. There is now total freedom of communication between SAF, its affiliate associations and member organisations.

The Client/Server unvironment provides office automation facilities for 400 users, and staff enjoy improved job satisfaction from being able to provide a complete and rapid response to members enquiries.

H M Customs and Excise Department has also chosen to restructure its computing environment. The government department responsible for collection of indirect taxes and duty is organised into 21 regions with headquariers to restructure did not support the UK government inhitatives to distribute budget of collections in four other focations. Until recently, it used a mixture of mainframes, proprietary systems and PC networks. This structure did not support the UK government inhitatives to distribute budget accountability and delegate responsibility to local management.

To empower managers to achieve local performance und budget objectives, a network of over 200 Unix servers has been designed to handle departments.

Financial and operational improvements have already been experienced in personnel and procurement.

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## Review By UniForum

HEWLETT PACKARD/SYBASE CASE STUDY: Prudential Assurance

## Home Services Client/Server systems Differentiating with

by Emma Manseli-Lewis

As he said. The only branch retwork was a poor set of PC systems. The sheer aggregation of PC systems was the downfall. There was no communication or ioformation personner. This information sharing is critical. Prudential offers a wide range of financial products and, without the correct resource. sales staff were lucable to analyse the needs of na customer prior to a visit. Prudential realised that, as Sketley explained, "We have sto give branches the necessary customer information across the various business and contract systems we are currently struct systems we are such information. Dad."

The decision was taken to implement a two tler information implement a two tler information. Services. Systems began developing its new scuttomer data whome Services. Systems began developing its new such prototype trials. Prudential believed its CIS following earlier of the other of the control of the other software new for the other software new for solution lay In the Open Software new for the other software new for the other software new for the other solution lay In the Open Software new for the other solution lay In the Open Software new for the other solution lay In the Open Software new formation solution and the other solution lay In the Open Software new formation solution and the other solution lay In the Open Software new formation solution and the other solution lay In the Open Software new solution lay In the other solution lay In the solution lay I The Hone Sarvice business within Prudential represents more than 50 percent of UK premium income. Ron Skelley, systems development manager at Prudental, said "We can choose to contect on cost alone or we can differentiate ourselves on other fronts. Insurance isn't just about selling. It's about providing advice and service throughout the life of the relationship. Information technicles withing the stronghold. Prudential has traditionally been an tBM stronghold. However. In Skelley, explained, "Aeross the company we spend more than £50 million each year on 1T but within Home Services our solutions had become inflexible and non cost-effective."

This realisation coincided with the growing desire to support safesmen both outside the office and at point of sale. Prudential Assurance has recently embarked on a mojor rwo tier client/server strategy, incorpotating its IBM mainframe with Hewlett Packard hardware and a Sybase relational database management systems.

Sybase was chosen as the provider of client/server based management system. "Sybase won in competition with Oracle. Ingres, Informix and DB2. The company has the right approach to the development of technologies. - specificacious were both met and exceeded." Skelley said. "Sybase offers good conoecovity to IBM MVS environments," he added." Sybase offers good conoecovity to IBM MVS environments," he added. "Sybase offers good conoecovity to IBM MVS environments," he added. "Sybase offers across the country. Each branches across the country. Each branch will have an HP 9000 machine and end users will access a consolidated repository of data on an Adabas database held on Prudential Assurance's IBM 3090 mainframe via Sybase's IBM Net Gateway and Open Server for CICS products. Eileen Hopkins. Business Project Manager for CIS at Prudential, said, "By automating processes such as prospecting, the production of campaigns. we have produced a system which will not only save the field staff three but also increase their productivity." Foundation's Distributed Computing Environment." I see Open Systems as an architecture within which every type of system can play a part," said Skelley.

Each branch was to be provided with a server and several PCs to provide local power to manipulate information. with a link to the existing IBM mainframe. The company at also evaluated mainframe upgrade options and disnuissed it. He said the client server approach: "significantly extends the life of our mainframe. It is a classic implementation of clieou server evaluated, including HP, Data General, Digital Equipment, IBM. NCR and Olivetti. Three companies, NCR, IBM and HP, were then shortlisted for benchmarking, but price performance also hind to be matched by the ability to provide central management over a 201 branch nerwork, reference sites, responsive services and technical support. Following this evaluation, Prudential opted for Hewlett Packard HP 90000 Unix hardware for the branch networks.

Unix challenge the Mainframe? corporate

Can

been actively involved in the porting or development of par-allel versions of their databas-

by Peter Slavid, Corporate Systems Business Manager, ICL.

Databases, the benefits of fully scalable performance can be delivered on an MPP platform up to the tevels needed by the largest users.

With the announcement late last year of the Goldcush Megascaver, ICL has staked its claim to be at the forefront of the commercial application of the commercial application of the commercial application of the commercial application of these technologies.

Goldrush is a relational database server, designed to sit in client/server networks, providing a corporate database servers.

Goldrush has been hailed os the most excling amouncement in this field and has attracted positive comment from Press and Analysts around the world. There have been two key factors behind this.

The original research programme which created the base for Goldrush was a collaborative approach has continued, involving the micro-kernel from Chorus Systemes, and the Verilas file management software.

The involving the micro-kernel from Chorus Systemes, and the Verilas file management software.

Askidnages, Sodware AG and, more recently, Informix has been even more critical. All intese database vendurs have

Over the past few years.

Umx has dominated the workgroup and departmental markets, and established a presence on the desktop. But, at the centre of large organisations, there has always been a retuctance to adopt Unix. Large companies have preferred to sitch with the mainframe for their large mission critical applicutions.

There have been good reasons for this Building corporate sons for this Building corporate for this Building corporate systems from multiple "downsized" systems is often a bad fit with the real corporate meeds, and imposes a messive management overhead.

Unix Symmetric Multiple Processor (SMP) systems have been ideal for the larger Unix user, but cannot, and never look likely to reach the levels of performance achieved by the largest mainfrants.

Massively Processing (MPP) technology has always promised better performance but has never been delivered with the reliability availability and serviceability features which the corporate user has come to expect. Even worse, the parallel world has required users to do special programming.

But now all this is changing. It is now clear that MPP technology will be the future of corporate computing. With the

concentral to corporate 11 customers.

A database server of this scale needs powerful clicul systems with equivalent levels of corporate strength. ICL's own mainframe users will, of course, be able to his Goldursh directly into their existing systems. But users of competitive equipment will need a different solution.

ICL has an agreement to work with Pyramid Technology Corporation on the development of a "combined" product comprising a powerful pyramid SMP Nile as Clicut, linked to a Goldrush Megaserver. This combined product will produce a Unix solution with both the performance and the credibility to tackle work previously possible This has been key to ensure that customers existing databases, can be moved to Goldrusk without change.

The second key differentiation for for Goldrusk has been the knowledge and experience which ICL hrings from its extensive background in mainframes and the corporate IT environmen.

ICL has made a major investment in Goldrusk systems in Goldrusk systems management software.

resilience features, arehiving software and other functions essential to corporate IT essential to corporate IT environment.

18

only on the largest nainframes.
With ICL's background in corporate solutions, and its strong position in Europe, allied to Pyramid's background in data centre Unix. Bree is every chance that Goldrush parallel technology is on its way to worldwide success.
Whether combined with evising unainframes or with powerful SMP systems, or servicing the needs of multiple distributed Unix systems, the corporate database server is now a real alternative for forward looking corporate users.

enterprise Advantage through information 20 october 1994, earls court 2, Iondon, uk

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New exhibition provides user solutions interested and the learning forum organization is the key to bushuss success. Enterprise IS is an intensive learning forum for husiness managers. IS directors and their staff loaking to explore the benefits of adopting an enterprise-wide approach to corparate IS systems. Visitors will see demanstrable proof of mutil-vendor toteroprability from exhibitors including IBM. Sun and Oracle. At the heart of the event is an Educational Programme designed to educate all texels of IT staff and business executives shout the technological and strategic issues at stake.

## DHL Accounts for Growth ORACLE CASE STUDY: DHL

Faced with a 25 per cent growth rate year on year, DHL, the largest laternational air express company in the world. decided to implement a truly pan-European accounting system to meet the financial and management reporting responsibilities of its 17 European offices. It unmed to Open Systems and Oracle technology and is already beginning to reap the benefits.

DHL employs more than Systems and Oracle technology and is already beginning to reap the benefits.

DHL employs more than Systems and Ships more than 80 million packages annually.

Like many large, successful organisations. DHL believes that its company's IT strategy has to be closely aligned to its business if it is to be truly effective.

In 1991, faced with the amaliand look to the future. At that time. DHL's business system 36 proprietary technology. As the business was growing, management realised that the existing information infrastructure was not keeping pace with the growth of the company and no longer accommodating its needs.

consists of two phases, planned to be completed within four years. The core Oracle-based financial systems will run on Hewlett-Packard Unix hardware. Colizilly 96 users will access the system but Hancock expects this to dramatically increace as the system becomes available on-line throughout the UK.

Local DHL offices are free to adjust and extend their local implementation in favour of their specific needs. The basic local system will meet all the legal standards with regard to VAT and be implemented in the required European languages, including English. Freoch German. Spanish, Princip Francies. Durch. Norwegian, France expected to be fully implemented by early 1994.

"Since we adopted Oracle database. Actuals, budgets, forecasis, financials in the Oracle database. Actuals, budgets, forecasis, financials and stainstical data is all recorded by early 1994.

"Since we adopted Oracle database. Actuals, budgets, forecasis, financials in the Oracle database. Actuals, budgets, forecasis, financials in the Gracle database. Actuals, budgets, forecasis, financials in the Gracle database. Actuals, budgets, forecasis, financials in the Gracle database. Actuals, budgets, forecasis, financials and stainstend from the original source data, the linegrity of the data is not duplication of data base. This means there is seemid.

"Sy encompassing the latest technology in hardware and software, the business will gain advantages in the scentist, and the security of the data, giving munagement up-to-date information to ensure that the best possible results are achieved, she says.

Hancock concludes. "On a European level, when all the system, the speed of processing, and the securacy and quantity of information we will be able to extract from the system will mark a significant improvement on the company in completive." accuracy and timeliness of data. The quality and quantity of information we company in a borg way to increasing our efficiency and compenitive.

Realising that the company needed to share information on a European and global basis and after analysing the benefits of dozens of syslem offerings, DHL decided to follow an integrated open ystem strategy. A major compontent of this decision was the implementation of a pan-European accounting application.

According to DHL's financial systems manager, Lesley Hancock: "We needed a supplier that could provide one single integrated solution for all our Flexibility, integration and portability apan, other criteria for our system included language, local currency and multi-u-company capabilities. local support, fullinem to country statutory requirements and a billing interface. She said.

Six country controllers representing the European operation, and a billing interface. She said.

Six country controllers representing the European operation, and a billing interface. She said.

Six country controllers representing the European operation and after a stringent evaluation, chose Oracle Financials and the Oracle database server in December 1992.

The project implementation

least of them is that, as the industry moves toward adherence to a single, unified specification for the Unix operating system (itself the key to most Open Systems solutions), one of UniForum UK's closest Board members come from both sides, to ensure that there is strong representation of the views and needs of each. To ensure balance, the chairman of the board is an annual appointee, one year coming from the supplier community, and the next from the users. "We have a wide and growing number of routes to users through which we provide information on what is happening in the Open Systems market," Flaxton said, "We have our monthly massare.

allies is the organisation with the task of ratifying the standard: X/Open.
"Perhops the most important reason," Flaxton suggests 'particularly for users, is the development and promotion by Uniforum UK of a set of Trading Standards. These comprehensively cover all aspects of Open Systems trading, from how to choose an Open System supplier through how to ensure that end users are trained properly."

Even here the need for Even here the need for Open Communications

money.

OSiS is designed to help here. OSiS is an on line Information service allowing subscribers easy unlimited access to a database of open systems products and services, simply by using a desknop computer and a telephone line. It is run by NCC and Level-7 and is a specific product of DFI's five year.

Open Systems

reassurances.

If they had better information about the type of systems they were buying in the first place, such companies would make better informed decisions about their investments in 1S. ond might save themselves

happening in the Open Systems market," Flaston said. "We have our monthly magazhe, Open Forum. which covers the latest techoology in Open Systems and how it can be exploited to their advantage by users. We also publish a range of other publications such as our User Case Book, which gives the users much needed pointers as to how others have successfully implemented Open Systems solutions." There is a new programme of seminars covering both the technology and its implementation. The first of these, organised together with the Financial Times, was targeted at IT consultants.

UniForum UK is also the sponsor of a new exhibition. Enlerprise 1S, to be held at London's Earls Court in October. Organised by Blenkeim On-Line, early responses from both the Open Systems suppliers and users strongly suggest that this will be one of the most important exhibitions of its

open communications open detween the users and suppliers underpins the standards that UniForum UK has defined. For example, it is self-evident that such standards should ensure the suppliers provide solutions that are fit for the task, and that they are well supported. But it is equally important that the standards ensure users have a clear understanding of what it is they are buytng, and why.

This epitomises what UniForum UK stands for. Open Systems is all about collaboration, and UniForum provides the meeting ground on which the users and suppliers can discuss their problems. communicate their needs, and ultimately collaborate on providing effective solutions for them.

Information on the wide range of activities and services provided by UniForum UK is available on tel: 081 332 0435 or fax: 081 332 0448.

For further details ring 061 876 0515



For further information, please contact: Oracle: UK 0344 860066



#### Buying the right information systems is a real worry to many business and frequently results in cutting deeply into profits that are meant to secure without providing clear benefits. Consequently many companies happily pay a premium to their IS suppliers in an effort to buy value for money?" your information DTI asks: "Are systems giving Taking the open route UniForum

by Martin Banks, Editor, Open Forum.

The key element of the Open Systems philosophy is communications, at the widest possible level. There is the obvious level of communications between different computers and their applications, it is the growing need for this amongst users which drove them towards Open Systems in the first place.

But achieving this requires another level of communication: between the users and the suppliers of communication: between the suppliers of computer systems, and between the suppliers themselves. This is where the worldwide UniForum

ovement has played a sig-reant role over its 14 year

history.

UniForum UK is part of an international network, with the UK organisation affilioted to some 39 other UniForum organisations around the world. Each one has the same fundamental goal, to promote the understanding and use of Open Systems concepts and technologies amongst their local user communities.

"As a not-for-profit organisation", says Philip Flaxton,
Director of UniForum UK. "we are able to devote all available resources into spreading the word as far as we can. We have a large and growing number of users who are members, and in Government. In addition, all the leading suppliers of Open Systems technology are members, many of them taking out membership with every UniForum organisation around the world."

The board of UniForum UK reflects this esential

As possibly the largest worldwide organisation dedicated to promoting Open Systems, there are a large number of reasons why both suppliers and users should be members of their national UniForum organisation. Not

IBM puts the focus on the user Open distributed computing: There's no longer any daubt that IBM's approach to open distributed computing is focussed on customer needs. Its leading technologies and experience are helping customers to achieve the benefits of open systems - not in a mythical future, but today.

Right from the start of the open systems movement. IBM has been opening up its systems by building in open standards confarmance (e.g. AIX on RISC System/6000 and Open Edition/AVS on its mainframes). Responding to the realists of the marketplace. IBM has licensed best-of-breed products from other vendors, as in the case of Hewlett Parkard's DpenView, IBM is also licensing its industry-leading technologies, such as CICS, sing technologies, such as CICS.

la designs as a basis for industry-wide standards.

But enstomer choice dictates that vendors competer: so, as with ADSTAR Distributed Storage Manager, IBM offers its own software on other vendors' platforms. In addition, IBM has been strong in its cooperation with other vendors within consortia like 'NOpen and COSE whose goal is to achieve standards across the industry, and with organisations like OSF tithe Open Software Foundation) who are sponsoring the development of the products required eg. DCE. But open systems, near nothing if they don't deliver the solutions the customer needs to support his business. Amongst

ing with its customers to make the idea a reality, is a recently privatised utility in the UK. Supponed by IBM from design and planning through to the implementation phase, the company re-engineered its IT to allow a radical change in the way it does business. It moved from a host-based to a twenter open eliendserver environment with centralised database servers tMVS and AIX running DB2 and ORACLE1 networked together, and integrating HPV image system.

So, IBM's open distributed capabilities are for useed on providing users with access to information wherever and however they need to use at. The gration

A Review By UniForum UK

ADVERTISEMENT

Five year Open Systems strategy starts to pay off

Financial Services

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FINANCIAL TIMES

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Section of the sectio

by Annabelle Brown

A strategy of standardisation and simplification has provided a relatively painless downsizing path for Kent County Council's Highways and Transportion department. The adoption of terminal emutation, giving users the power to run PC applications and access Urix facilities has

access Unix facilities, has been a key part of this process.

The job of looking after Kent's 5,513 miles of road, and 4,200 miles of footpaths, bridle ways and byways falls on the paths, bridle ways and byways falls on the Highways and Transportation department of Kent County Council.

The department is responsible for the design and repair of Kent's rond systems, for providing public transport services and look-

ing after the important area of road safety.

Like many councils, Kent has gone through a process of downsizing its computer systems, which began about five years ago. From a situation where most of its computing was done through the council's trainframes, the Highways and Transportation department is now the proud possessor of a Unixbased departmental server system which is virtually autonomous from other council systems.

The departmental server system now established has given end users greater power at the desktop than ever before. Nu matter where in the county they are based, they can utilise PC-based applications - both office applications and specialist PC highways applications - and they can also access

running Unix was via dumb terminals. As time went by, requirements changed. Richard Meade, operations team leader of infonnation systems for the department, said: "As users needed to replace dumb terminals, they started asking for PCs, so they could use a better spreadsheet or a particular word processor.
"The solution was to install PCs gradually and to link them into the Unix systems with terminal enutlafor power-hungry graphical applications such as computer aided design (CAD) and geographical information systems (GIS).

Originally, access to the ICL minicomputer systems running Unix was via dumb terminals. As time went by,

tion software."
Terminal emulation software provides PCs with immediate access to host applications and data, plus the ability to transfer files. When used in conjunction with related connectivity

counputers.

WRQ's Reflection 2 for WRQ's Reflection 2 for DOS was chosen as the standard enulator and was supplied and installed by WRQ's sole UK distributor Wick Hill IMX.

Tuday, the Highways and Transportation depurtment has around 300 PCs running Reflection 2 for DOS, some ten running Reflection 2 for Windows, and only a few dumb terminals remaining.

Around ten of the PCs om a wide variety of host

have WRQ's Telnet Connection (part of WRQ's Reflection Network Series), which allows for faster file transfer for users needing to transfer heavy arrounts of data, such as large map files. 19 groups using local area networks. PCs within the local area networks are connected to the main network via Reflection.

Applications on the PCs have grown. Office applications such as Word, Excel and PowerPoint are widely used. A range of PC-based specialist highways applications for such tusks as dealing with street works opening or traffic system modelling have also been adopted. Additionally, the department has a large number of

areas such as quality assur-ance, accidents and bridge records.

"Terminal emulation has also been able to accommodate our changing requirements."

Clive Bonner, IS Services manager for the department, says: "We were able to go painfessly from Unix minicomputers with dumb terminals attached to them, to having PCs which still looked like terminals. Reflection is easy to use, so we haven't had to spend a lot of time and money on training staff. Terminal emulation has also been able to necommodate our changing requirements."

## ode hed

Late last year saw the launch of UniForum UK's Cude of Practice, and Don Folland, chairman of UniForum UK's Trading Standards Committee, used the occasion to offer some of the biggest names amongst UniFarum UK's trading members a challenge - to be amangst the first to voluntarily adopt the Code's provisums.

'I realise that many of these companies, the household names of the open systems business, probably use internal trading standards that are the equivalent of the Code,' he said, 'so they probably already comply with the standard we have laid down. Stage one is in the process of getting

'Test driving'

**Digital** 

XP Systems on

The

the Code widely accepted: get-ting the supply side of the industry to comply with its provisions. To begin with this will be on a voluntary basis, and as the base of compliant companics increases so it is hoped that the number of applications from other trad-ing members will also

This will attract the customers who are looking to do business, wherever possible, with suppliers that have some mark of approval for both their competence in their products and their ways of doing busincss.

'With the big names on board,' Fulland added, 'wc can then attract the smaller vendors such as the value-

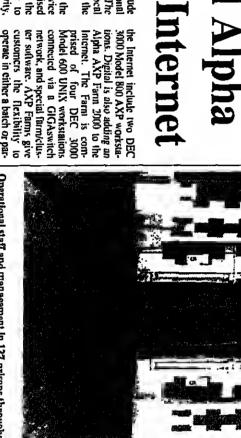
added resellers. These are the companies that really need a Code of Practice and the recognition that they comply with it. Perhaps the most important feature of the Code of Practice is that it lays stress not only on the seller to behave according to a set of rules, but also on the buyer to know what it is they are buying. The key to ensuring that this step is taken is the introduction of a Memorandum

Understanding (MOU).

'The MOU is the fundamental document in the Code of Practice,' Folland said. 'It will be signed by both the vendor and customer, so that both sides know and understand what it is that is being bought, for what purpose it is intended and how it should fit those objectives.

The Committee's work has not been conducted in isolation. It has taken on board the work already done by the Computing Services Association, and is in current discussions with FAST, the Federation Against Software Theft, to harmonise their respective efforts. FAST is moving towards the development of an accredited reseller scheme of its own.

The Code's provisions are directed



Operational staff and management in 127 prisons throughout England and Wales will have hetter access to the data they hold about inmates thanks to a half million paund deal with Winchester based IQ Software Corporation far Intelligent Query Report Writer (IQ). Easy to use, IQ runs in most computer environments and supports a wide range of databases making it an ideal carporate-wide approach to information systems far end users.

system.
To register for an account, Internet users connect to:axpost, pa.dec.com, or 16.1.0.14 via telnet, or rlogin, then login as axpguest (no password).

The company is also upgrading the two existing DEC 4000)
AXP systems to 256 Mbytes of mentory each.
The programme provides customers with access to the Alpha AXP system to test, qualify, or port software, before making the decision to purchase.

Historically, Internet has been used mainly by educational badies for the exchange of research, data and statistics. Today, the internet system is working for industry and commerce, offering worldwide communication with services.

Increasing demand from the UK corporate sector has led Digital to expand on its papular Alpha AXP Internet, programme by making six new Alpha AXP Unix systems evailable to customers through internet.

organisations have "test driven" the Alpha AXP system.
Software developers have also used the system to pon 90 applications to the DEC OSF/I operating system, to add to the over 2,500 OSF/I applications already available.

connected to Internet include Barclays. Phillips. National Power. Eagle Star. The National Trust. Local Government, the NHS, and the BBC.
"In a recent speech to the National Press Club, US vice president Al Gare emphasised the importance of using the information superhighway to increase commercial activity, improve education, and to provide better access to informa-

## ADVERTISEMENT

TINANCIAL TIMES

A Review By UniForum UK

#### uxed0 pen Systems LTP fit makes

by Duncan Baldwin

Open Systems means dif-forent things to different people. However there is one product that over 50 suppliers, including Amdahl, Bull, Data General, Digital Equipment, ICL, Sequent and Tandem, agree quent and Tandem, agree on as being a key particint - the Tuxedoir) System
a managing On-Line Tranction Processing (OLTP).
The Tuxedo system is in
roductioo use in retail.

processors, presentation front-ends and databases. All of which can be independently changed as circumstance dictate - plug and play. Part of this new wave of development is the evolution of what was once the traditional moinframe-based

Council. Many hardware vendors have used Tuxedo to achieve an unprecedented range of performance from SI TPS (Transactions Per Second) to over 1000 TPS

Transaction riversem Monitor into a new generation of middleware - the Monitor. The Transaction of middleware - the Transaction of Tran

The new ICL servers are good looking as well as powerful and dependable. Scandinnvian design has given them saft lines, a curved tap and a range of elegant colaurs muking them as different from every other server, as your business is different from every other business. These new servers give you freedom of choke - ensuring your business can respond to change and compete and thrive in today's dynamic world.

Client/Server Tuxedo(r) Novell's

financial, government and inedical inarkets worldwide. A number of European banks have been quick to see the advantages of using Tuxedo to provide fast and accurate electronic banking whilst at the same time remaining responsive to customer demands, for example Credit Agricole de Chartires in France and Credit a l'Industrie in Belgium. In the UK, ICL are developing a new generation of Retail Banking systems using Tuxedo's

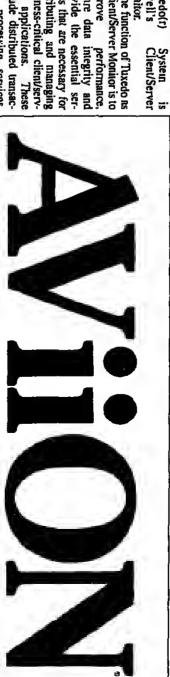
Following the acquisition Following the acquisition of AT&T's Unix System aboratonies, the ownership of Tuxedo has now passed to Novell, where it is being ntegrated with the new generation of networking technologies. Novell licenses uxedo to other companies who in turn incorporate into their product portfolios. using anced Processing. Platfurm support has grown dramatically, with Tuxedo now offered on over 25 platforms, including most Unix implementations, MVS and VMS, with new ports expected to other pupular platforms, such as a large of the content The Tuxedo System pedigree can be traced to a disgree can be traced to a disprobation developed within AT&T more
than a decade ago. Since
then, Tuxedo has been
enhanced with many new
features and has been pivotal in X/Open's XA, TX
and XATM! Specifications
for Distributed Transaction
Processing Platform con-

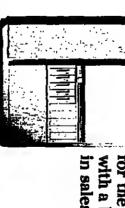
client-server

ant? The dominant trend friving companies' investment in information systems, s're-sizing', in other words he process of placing applications on platforms that offer superior price-performance. This trend is largely responsible for accelerating the growth of distributed litent/server computing. Furthermore, the solutions are increasingly based around a Unix Open server-side compunents.
When the AIC Correct
Group in Netherlands developed a new stack control and ordering system for their consumer and business electronics business electronics business they chose Tuxedu. A bonus that has also been noted by other companies is that applications developers new to Tuxedo become productive more quickly than with traditional technologies, so reducing development costs. ports expected to other pnpular platfornis, such as AS/400. Tuxcdu suppurts connectiun tu desktop platfornis such as DOS, Windows, OS/2, Macintosh and Unixware and suppuns all of the popular databases. Over 20 development toul vendors support Tuxch for developing client-side and server-side compunents.

Systems strategy.

The distribution of both applications and databases inherent in re-sizing exercises has ushered in new opportunities for application designers and system administrators. Standard interfaces are providing mark reports Transaction ne performance bene Tuxedo gives can l n in the audited bene





**Data General** 

by

The new leader in Open Enterprise servers for the commercial market in sales! with a billion dollars

AVIION REACHED A \$1 BILLION INSTALLED BASE IN 4 SHORT YEARSI With over 20,000 systems shipped all around the world. AVION SURGED IN GROWTH! VHON OPEN ENTERPRISE SERVERS-THE LEADING PLATFORMI the U.S. UNIX medium-scale systems market in 1992.\*

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by the readers of Computerworld.\*\*

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